



Course on Molecular and Statistical Genetics of Consanguinity

13-16 May, 2012

EuroMediterranean University Center of Ronzano- Bologna (Italy)

Directors:

L. L. Cavalli-Sforza (Milan, Italy), C. Cannings (Sheffield, UK), G. Romeo (Bologna, Italy)

13 May Sunday

Morning Session: Basic theory on kinship, inbreeding and IBD : applications to medicine

8:00- 8.30	Course Registration
8.30- 8. 40	G. Romeo Introduction to the course
8.40- 9.30	L.L. Cavalli Sforza: Demography and population genetics of consanguinity
9.30- 10.20.	A. Bittles Consanguineous marriage: facts versus fiction
10.20-11.30	C. Cannings The Basic Theory of Inbreeding; Genes, Chromosomes, Genealogies.
11.30-11.40	Coffee Break
11.40-12.20	P. Gasparini The use of genetic isolates to dissect complex and quantitative traits: the advantage of a National network of inbred populations
12.20- 13. 00	A. L. Leutenegger Unexpected findings in Taybi-Linder syndrome/MOPD1 : an illustration of homozygosity mapping by genomic control
13.00-14.00	Lunch Break and tour of the Hermitage of Ronzano
14.00-14.30	Posters Viewing Session

Afternoon Session: 2 rounds of Concurrent Workshops 14.30-18.00

A.L. Leutenegger t.b.d

P. Gasparini t.b.d

D. Teare basic data handling and analysis using PLINK

A. Boattini t.b.d

T. Pippucci t.b.d

14 May Monday

Morning Session: Molecular approaches (population inbreeding studies, inferring relationships from GWAS or sequencing data i.e.: runs of homozygosity).

- 9.30- 10.10 F. Cucca **The Sardinia project**
- 10.10- 10.50 Y. Aulchenko **Modern methods for association analysis of complex traits in genetically isolated populations**
- 10.50-11. 20 **Coffee Break**
- 11.20-12.00 P. Gasparini **Consanguinity and next generation sequencing to identify genes for inherited diseases**
- 12.00-12.40 A.L. Leutenegger t.b.d and/or D. Teare **Overview**
- 12.40-14.00 **Lunch**
- 14.00-14.30 **Posters Viewing Session**

Afternoon Session: 2 Rounds of Concurrent Workshops 14.30-18.00

P. Gasparini t.b.d

A. Boattini t.b.d

T. Pippucci t.b.d

Y. Aulchenko **GWA analysis in genetically isolated populations using GenABEL suite**

15 May Tuesday

Morning Session: NGS and gene identification for Intellectual Disabilities

- 9.00- 9.40 H.H. Ropers
- 09.40- 10.30 Y. Aulchenko **Computational and methodological challenges in analysis of omics data**
- 10.30-11. 00 **Coffee Break**

- 11.00-11.40 H. Hamamy **Genetic counseling and consanguinity**
- 11.40-12.00 D. Teare t.b.d
- 12.00-12.40 **Best Posters presentations by students**
- 12.40- 13.40 **Lunch**

Afternoon Session: 2 Rounds of Concurrent Workshops 14.30-18.00

- A.L. Leutenegger t.b.d
- P. Gasparini t.b.d
- D. Teare t.b.d
- Y. Aulchenko **GWA analysis in genetically isolated populations using GenABEL suite**

16 May Wednesday

Morning Session: Future research directions in the consanguinity field (with particular emphasis on gene identification for Intellectual Disabilities)

- 9.00- 09.40 C. Cannings
- 09.40- 10.20 D. Teare **Epidemiological associations between disease risk and inbreeding**
- 10.20-10.40 **Coffee Break**
- 10.40-11.20 A. Bittles **Consanguinity and developmental intellectual disabilities**
- 11.20-12.00 H. Ropers
- 12.00-12.40 G. Romeo **New perspectives for consanguinity studies**
- 12.40-13.20 **Short presentation of the EU Cherish Project (Project Grant Agreement N°223692)**
- 13.20 **Lunch and departure**