

“Two genome-wide association studies in neural processing of faces and neurocognitive functions”.

Speaker: Arnaldo Frigessi

*University of Oslo
Department of Biostatistics
Institute of Basic Medical Research*

Ospite: Clelia di Serio - CUSSB

martedì 14 dicembre '10
9.30 - 11.00

AULA ASCLEPIO
Università Vita-Salute San Raffaele
Via Olgettina 58, 20132 Milano

I will report on two genome wide association studies performed at the University of Oslo within the TOP study group, a major collaborative effort to study clinical characteristics, neurocognitive functioning and brain biology of psychotic disorders, with the overall goal of identifying genetic mechanisms. In these studies we identified novel loci associated with neurocognitive function and face recognition. In the first study, we investigated the genetic control of face recognition. There is strong evidence that humans have specialized cognitive and neurobiological mechanisms dedicated to the perception of faces with the fusiform face area. Here we used a genome-wide screen to identify single nucleotide polymorphisms (SNPs) associated with areas of increased brain activity in response to affective facial expressions measured with functional magnetic resonance imaging. In the second study, we studied several aspects of neurocognitive function which have a high heritability, but where the molecular genetic mechanisms underlying the variation in neurocognition were not known. Again, we performed a genome-wide association study to identify genes associated with neurocognitive domains. In this lecture, I will describe these studies, focusing on the statistical challenges and our solutions. I will report the biological findings, but as a non-expert, I will not be able to present them in full biological context.

il seminario si terrà in lingua italiana salvo presenza di ospiti stranieri nell'audience.

Per ulteriori informazioni: Segreteria CUSSB pederzoli.samanta@hsr.it