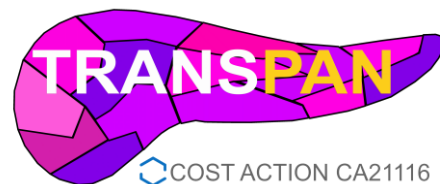# Training School in Genomic data analysis in association studies

This training school will focus on genome wide association studies (GWAS) and their use in genetic epidemiology/pharmacogenomics. It will take place in person in Pisa from the 19th to the 21st of June 2023 (three full days).

Preliminary program:

- Introduction to different sources of array data.

- How to work with different data format (obtained from SNPs arrays) to obtain a usable dataset (binary files in plink format).

- Data quality control procedures (QCs) to check for variants and or individuals to be excluded from the analysis.

- Data imputation using dense reference panels. To increase the number of markers that are not directly genotyped in the study sample, genotype imputation will be carried out using TOPMed or HRC panels.

- Statistical data analysis to obtain the summary statistics of a genome wide association study and data interpretation through Manhattan plots and qq-plots.

- Generation of a Polygenic Risk Score (PRS).

To apply please use the google form that you can find at this link:

https://forms.gle/cs9k5kikChw6WNLS8

Please note: a basic knowledge of programming is recommended to fully take advantage of the training school.

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