

Thursday 13th January 2021

through

Wednesday 27th January 2021

Biostatistics for Molecular and Cellular biology - cfu 5

**SPEAKER: Prof. Giorgio Binelli - DBSV
University of Insubria**



PROGRAM

The goal of this course is to present and/or remind the basics of statistical analysis, with special emphasis on the planning of the experiments and the analysis of experimental data in the field of Life Sciences.

- o Why use Statistics. Populations and samples. Basics of probability. Random variables.
- o Frequency distributions; what is a statistical test: power and protection of a test, Type I and Type II errors.
- o The χ^2 test. Goodness-of-fit test and comparisons between proportions.
- o The General Linear Model (GLM) and the model of Analysis of Variance (ANOVA).
- o One-Way ANOVA: the completely randomised and the randomised block designs.
- o Two-Ways ANOVA: the factorial design.
- o Linear regression models, parameters estimate in linear, multiple and curvilinear regression.
- o Some basics of multivariate analysis.
- o Use of statistical software. Examples in R.

Classes will be held at 8:30 AM on

Wednesday, Jan 13

Thursday, Jan 14

Friday, Jan 15

Monday, Jan 18

Tuesday, Jan 19

Monday, Jan 25

Tuesday, Jan 26

Wednesday, Jan 27

