

# **BIOSTATISTICS**

## **1. DATA REPRESENTATION IN THE CASE OF A UNIQUE AND BIVARIATE CASE**

- ♣ seriousness and tabulations
- ♣ graphic representations
- ♣ frequency distributions
- ♣ knowledge of the main statistical software (SAS, R, STATA, SPSS)

## **2. DATA ANALYSIS IN THE UNIVERSIFIED CASE**

- ♣ position indices (fashion, average, median and quantiles)
- ♣ dispersion indices (variance, standard deviation, coefficients of variation and indices of mutability)
- ♣ shape indices (asymmetry and kurtosis)

## **3. ANALYSIS OF DATA IN THE BIVARIATE CASE**

- ♣ covariance
- ♣ correlation measurements (linear correlation coefficient, Spearman correlation coefficient, Kendall tau coefficient)

## **4. ESTIMATE INTERVAL**

- ♣ confidence intervals for an average
- ♣ confidence intervals for a proportion

## **5. HYPOTHESIS VERIFICATION**

- ♣ error of I and II type
- ♣ test z and test t Chi chi-square test
- ♣ risk measures

## **6. NON-PARAMETRIC TESTS**

- ♣ Wilcoxon test
- ♣ Mann Whitney test
- ♣ normality verification test
- ♣ comparison of three or more samples

## **7. ANALYSIS OF SURVIVAL**

- ♣ graphical methods (Kaplan-Meier curves)
- ♣ hypothesis testing: log-rank test
- ♣ Management of a database