Parametric and non-parametric tests

Parametric test	**Non-parametric test**	**Purpose**
Two sample (unpaired) *t test*	*Mann-Whitney U-test*	Compares two independent samples from same population
One-sample (paired) *t test*	*Wilcoxon* matched-pairs test	Compares two sets of observations on a single sample (null hypothesis)
One way analysis of variance using total sum of squares (*f test*)	Analysis of variance by ranks (*Kruskall-Wallis* test)	Generalisation of *paired t* or *Wilcoxon* when 3 or more sets of observations are made on a single sample
Two-way analysis of variance	Two-way analysis of variance by ranks	As above, but tests the influence (and interaction) of two different covariates
-	x^2 *test*	Tests null hypothesis that the proportions of variables estimated from 2 (or more) independent samples are the same
-	*McNemar's* test	Tests the null hypothesis that the proportions estimated from a paired sample are the same
Pearson's r (product moment correlation coefficient)	*Spearman's rank* correlation coefficient	Assesses the strength of the straight-line association between two continuous variables
Regression by least squares method	-	Describes the numerical relation between two quantitative variables – allowing one to be predicted from the other
Multiple regression by least squares method	-	Describes the numerical relationship between a dependent variable and several predictor variables (covariates)

Kaplein Meir – needs to be done when considering survival/time