Handley lab statistical analysis decision tree (rstatix)

data

presence / absence → data format: **matrix** → **fisher.test()**

mean / median → **dataframe** → normality test: **shapiro_test()**

parametric (p > 0.05)
- comparison groups #s: **two** → independent / paired: **t_test()**
- **multiple** → **anova_test()**

nonparametric (p < 0.05)
- **two** → **wilcox_test()**
- **multiple** → **kruskal_test()**

adjusted p-value

multiple comparison correction

comparison groups: **two** → **Family-Wise Error Rate (FWER)**
- LERAN'S RULE *n < 30* → **p.adjust.method = "holm"**
- n ≥ 30 → **p.adjust.method = "bonferroni"**

multiple → **False Discovery Rate (FDR)**
- **anova_test()** → **tukey_hsd()**
- **kruskal_test()** → **dunn_test()** → **p.adjust.method = "BH"** (Benjamini-Hochberg)