## Statistical analysis plan

## 1. The data obtained from the cross over design is inspected according to principle published here:

Wellek S, Blettner M. On the proper use of the crossover design in clinical trials: part 18 of a series on evaluation of scientific publications. Dtsch Arztebl Int. 2012 Apr;109(15):276-81. doi: 10.3238/arztebl.2012.0276. Epub 2012 Apr 13. PMID: 22567063; PMCID: PMC3345345.

If the treatment sequence is significant, the variable measured is not interpreted.

## 2. The data that are related to 2 treatment groups and is analyzed according to statistical tools available in MINITAB 18.

The methods are:

Grubbs' Test for Outliers

T-test with a priori equal variance and 2- tailed

z-test for direction of change using estimated population variance

ANOVA, subgroup GLM for assessing variables that may covary with the

intervention, this may typically be time of blood sampling.

## 3. Preprocessing of raw data

The data will be analyzed as is but also be transformed to fractional changes using the formula

$$(V_a - V_b)/V_b)$$

 $V_a$  = variable measured after test diet

 $V_b = variable$  measured before test diet