Training 2:   <u>**Introduction to Statistics for Analytical Scientists**</u>

30.06.2022 (Thursday)

A G E N D A

Time	Topics

11:00-13:30 GEO	<u>Summarising data</u>
	• Populations and samples of data
	• Distributions of data
	• Summary statistics
	   o Mean, standard deviation, relative standard deviation, standard deviation of the mean
	• Basic Excel functions
	<u>Introduction to significance testing</u>
	• Uses of significance testing
	• Types of significance test (t- and F-tests)
	• Significance testing procedure
	   o Hypotheses, level of significance, number of tails, critical values, assessing significance
	<u>Applications of statistics in quality assurance</u>
	• Construction and interpretation of control charts
	• Interpreting results from proficiency testing schemes

13:30-14:15 GEO	**Break**

14:15-16:45 GEO	<u>Applications of significance tests</u>
	• Different types of t-test and examples of their applications
	   o one-sample, two-sample and paired t-tests
	• Use of the F-test for comparing variances
	• Introduction to analysis of variance
	   o Examples of use in method validation
	• <u>Data analysis tools in Excel</u>