**TIMETABLE of the lecture**

**Genetics of Human Development**

Summer semester 2023/2024

(non obligatory)

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| **Date**  | **TOPIC**  |
| 6 March**11:45 – 16:30** | **11:45-13:15**1. Introduction to R language (dplyr library)2. Simple data plots: scatterplot, boxplot and (ggplot2 library**)****Dr hab. Tomasz Górecki, prof. UAM** |
| 6 March**11:45 – 16:30** | **13:30 – 15:00**1. Descriptive statistics: mean, median, mode, variance, standard deviation, standard error2. Statistical tests – introduction**Dr hab. Tomasz Górecki, prof. UAM** |
| 20 March**15:00 – 16:30** | **15:00 – 16:30**Introduction to Systems Biology**Dr Marcin Sajek** |
| 13 March**10:00 – 15:00** | **10:00 – 11:30**1. Goodness of fit tests: exact test, test chi2 and test G2. Comparison of two populations: – t test for independent and dependent samples. Wilcoxon test**Dr hab. Tomasz Górecki, prof. UAM** |
| **11:45 – 13:15**1. Assumptions in statistical tests: normality, homoscedasticity of variance – Box-Cox method2. Comparison of multiple samples – one-way and multiway analysis of variance (ANOVA). Kruskal-Wallis test and Friedman test. Post-hoc comparison**Dr hab. Tomasz Górecki, prof. UAM** |
| **13:30 – 15:00**Independence tests. Mosaic plot, balloon plot and association plot**Dr hab. Tomasz Górecki, prof. UAM** |
| 3 April**10:00 -15:00** | **10:00 – 11:30**Pearson and Spearman coefficient of correlation. Application of scatterplot and sunflower plot to correlation analysis**Dr hab. Tomasz Górecki, prof. UAM** |
| **11:45 – 13:15**Simple regression. Multiple regression**Dr hab. Tomasz Górecki, prof. UAM** |
| **13:30 – 15:00**BioconductoR**Dr hab. Tomasz Górecki, prof. UAM** |