

# Bioinformatics $\rightarrow$ categorical variables $\rightarrow$ AIDS

Gábor Borgulya MD MSc

2006-MAY-08

## 1 Bioinformatics

What is bioinformatics? Targets of interest of various fields, including proteome structure prediction, system biology and biostatistics.

## 2 Biostatistical methods on categorical variables

Overview of biostatistical methods: classification of probability variables, methods with two probability variables of various types (special attention to rank based methods), multivariate modelling. Repeated measurements on the same subject, random effect models.

Treatment of missing values: losing cases, substitution, Bayes modelling.

## 3 Subgroups and data-mining

Subgroups by categories, categorisation. Decision trees, cluster analysis, PCA.

## 4 Analysis of AIDS data

Categorical variables in a databank of AIDS patients, overview. Possible outcome variables. A random effect model proposal.