## **Abstrakt AJ**

The thesis deals with the possibilities and problems of DNA analysis in its use in kinship studies and investigation of distant biological relationship of people. It presents a summary of useful DNA markers with a focus on linking autosomal markers and lineage markers - mtDNA and Y-STR; characterizes the typical heredity of individual types of markers and explains the basic principles of interpretation of their analysis. The research also deals with computer software exploited in statistical calculations; case studies, specific examples of the use of DNA analysis in kinship studies and investigation of distant biological relationship of people are also included at the final section.

## **Key words**

DNA analysis, genealogy, kinship study, STR, SNP, DNA marker