MESSAGE FROM THE 10TH CENTURY HIDDEN IN THE ANCIENT DNA

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Analysis of the ancient DNA from human tissues such as bones or teeth or from any other degraded biological material from long deceased individuals is highly challenging for many forensic geneticists that deal with such a project. There are several techniques that have been published in the last decade that could be used to solve this puzzle, however in most of the cases the methodology needs to be slightly changed according to material that is analyzed.

We have tested and compared several DNA extraction methods from the bone/tooth samples from the 10th century (Klecany I, II - archaeological sites/burial-ground dated to the 10th century). One of the methods tested showed the biggest yield of the DNA and therefore was used in the DNA extraction for the rest of the samples mentioned above. The DNA extraction was followed by successful STR typing. The other goal of this project is to perform the kinship analysis of the samples from the Klecany locality. We believe that such a robust method could be used for any other problematic samples that forensic geneticists have to deal with in their everyday life.