

# CURRENT RESEARCH TECHNIQUES FOR STUDIES ON BIODETERIORATION OF HISTORICAL OBJECTS

## Summary

Incomplete knowledge of agents responsible for biodeterioration of the museum objects prevents from introducing effective restoration strategies. For proper conservation approaches it is necessary to identify complete microbial consortium inhabiting a given object, as well as, to find connections between products of microbial metabolism and chemical features of the material the object is made of. Therefore, development and application new methods for the study of biodeterioration of historical objects seems to be indispensable. To precisely de-

termine the taxonomic position of microorganisms inhabiting museum objects, the evaluation of different existing molecular techniques is necessary, for instance genetic fingerprinting, ribosomal RNA gene sequencing, bioinformatics or metagenomics. Identification of microbial metabolic products is possible with the help of recently emerged approach, metabolomics. In this paper some current research techniques in use for the evaluation of biodeterioration of historical objects are presented.