

UNIVERSITAS STUDIORUM SPALATENSIS

SPLIT SUMMER SCHOOL STSS2020

COURSE: Introduction to Ancient DNA Analysis

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Main topics:

- laboratory processes (DNA extraction, library preparation, sequencing, etc) involved in the generation of ancient DNA data
- characteristics of ancient DNA
- working with the terminal to evaluate BAM files
- · evaluating genetic relationships using mitochondrial and nuclear DNA
- advanced topics in the application of ancient DNA



Programme structure:

- 5-day course
- Sample data will be provided for practice and for final presentation
- · Every student gets lecture notes

Important dates:

Course dates: TBD June/July 2020

Deadline for application: 01/05/2020 Payment due by: 15/05/2020 Confirmation of the course: 05/05/2020

Price of the course: 300 € (tax included)

Programme plan:

Day 1

Introduction to the different characteristics and properties of ancient DNA. Interpret simple and complex STR mixture profiles (GMHID software exercise).

Day 2

Hands on work with the terminal – how to navigate directories, look at files and run scripts.

Day 3

Discussions of different protocols used in different labs and their impacts on the data generated.

Day 4

Using the powerful and flexible R language, here implemented in Rstudio Mine data and interpret results.

Day 5

Working with real data and learn how to evaluate their quality and the type of biological questions that can be answered with different samples.

Programme lecturers:

Željana Bašić, PhD, Associate professor; University of Split Ivana Kružić, PhD, Associate professor; University of Split Elena Zavala, Master of Professional Studies in Forensic Science; Max Planck Institute for Evolutionary Anthropology

Laurits Skov, PhD; Max Planck Institute for Evolutionary Anthropology

Mateja Hajdinjak, PhD; Ancient DNA Laboratory, The Francis Crick Institute
Benjamin Vernot, PhD, Max Planck Institute for Evolutionary Anthropology