

















# HRZZ IP-2022-10-8926 - Bridging the Disciplinary Gap: Integrating Animal Genetics and Archaeology in Croatia (PI: Vlatka Čubrić Čurik)

# Workshop AGGA - archaeology to genetics and back

18-20th September 2024 ZAGREB - CROATIA

#### VENUE:

University of Zagreb Faculty of Agriculture, Department of Animal Science Svetošimunska 25, 10000 Zagreb, Croatia

Organized by the Rajna Šošić Klindžić and Ino Čurik –

leaders of the WP5 Integration of animal genetics with archaeological evidence

Supervisor: Preston Miracle

AIM: In the GAbridge project, we have assembled a multidisciplinary team of scientists with expertise in molecular genetics, population genomics, applied animal breeding, computer science, and archaeology and zooarchaeology, following the disciplinary MIT approach outlined by Stock and Burton (2011). To foster interdisciplinary collaboration, we will host a workshop aimed at introducing genetic concepts to archaeologists and bringing archaeology closer to geneticists. The aim of this workshop is to bridge the gap between genetics and archaeology so that archaeologists and geneticists can collaborate in their joint research. By combining these disciplines, we aim to gain new insights based on the sequencing of bovine genomes. This integration of genetic data into an archaeological framework will allow us to uncover the historical trajectory of cattle in south-eastern Europe and gain a more comprehensive understanding of their development and significance throughout history. This workshop will have both a theoretical and a practical part in archaeology and genetics.

### Day 1: Bringing archaeology to geneticists A2G

### 18 September

08.30-09.00 - Registration

#### 09.00-09.30 - Welcome and Introduction

- Vlatka Čubrić Čurik PI of the GAbridge
- Preston Miracle supervisor
- Rajna Šošić Klindžić and Ino Čurik leaders of WP5

# **09.30-10.30** – Scientific Session I: Invited Presentations (Chairpersons: Rajna Šošić Klindžić and Ino Čurik)

- 1. Interpreting and dating archaeological record (Rajna Šošić Klindžić)
- 2. Archaeological data collection—(Katarina Gerometta/Rajna Šošić Klindžić)

#### <u>10.30-11.00 - Coffee Break</u>

#### 11.00-13.00 - Scientific Session II: Invited Presentations from Young Researchers

(Chairpersons: Rajna Šošić Klindžić and Katarina Gerometta)

- 1. paper 1 questions (basic archaeology) questions from archaeologists/geneticists
- 2. paper 2 questions (basic archaeology) questions from archaeologists/geneticists

#### 13.00-14.00 - Light Buffet Lunch

# **14.00-17.30 – Practical Part (Session I and II): FIELD** – Goran Tomac, Vladimir Brajković, Rajna Šošić Klindžić and Ino Čurik

How to excavate archaeological material?

17.30-18.00 - Coffee Break

18.00-19.00 Why playing with stratigraphy is important in this context? (Giovanni Boschian) 19.00-19.10 – Wrap up & End of Day 1 (Rajna and Ino)

### Day 2: Bringing archaeology to geneticists A2G

### 19 September

## **09.00-10.30** – Scientific Session I: Invited Presentations (Chairpersons: Rajna Šošić Klindžić and Ino Čurik)

- 1. Why Zooarchaeogenetics? Who, what, when, and where in glacial and postglacial Europe (*Preston Miracle*)
- 2. Human-wildlife interactions in the Holocene of the Central Balkans: insights from zooarchaeology and archaeogenetics on wild cattle extinction and brown bear population dynamics (Sonja Vuković)

#### 10.30-11.00 - Coffee Break

#### 11.00-12.00 – Scientific Session II: Invited Presentations from Young Researchers

(Chairperson: Goran Tomac and Preston Miracle)

- 1. paper 1 questions from archaeologists/geneticists
- 2. paper 2 questions from archaeologists/geneticists

**12.00-13.00** Aurochs and cattle in Neolithic Austria: the archaeozoological record (*Konstantina Saliari*)

### <u>13.00-14.00 – Light Buffet Lunch</u>

#### 14.00-16.00 - Practical Part (Session I): OSTEO LAB - Goran Tomac

Identification of materials in lab

#### 16.00-16.30 - Coffee Break

#### 16.30-18.00 - Practical Part (Session II): OSTEO LAB - Goran Tomac

What if we put the bags together?

About GMM of cattle and what to do with that data?

18.00-18.10 - Wrap up & End of Day 2 (*Rajna, Ino, Goran*)

## Day 3: Introduction of genetic concepts to archaeologists G2A

### 20 September

**09.00-10.30** – Scientific Session I: Invited Presentations (Chairpersons: Rajna Šošić Klindžić and Ino Čurik)

- 1. Basic animal genetics and structure of DNA Vlatka Čubrić Čurik
- 2. Basic population genetics (mtDNA, Y) *Ino Čurik*

#### 10.30-11.00 - Coffee Break

# 11.00-13.00 – Scientific Session II: Invited Presentations from Young Researchers (Chairperson: *Ino Čurik*)

- 1. paper 1 questions from archaeologists/geneticists
- 2. paper 2 questions from archaeologists/geneticists

#### 13.00-14.00 - Light Buffet Lunch

# 14.00-16.00 – Practical Part (Session I): EXTRACTION OF DNA - MODERN DNA LAB Ivana Držaić, Vladimir Brajković, Vlatka Čubrić Čurik

#### 16.00-16.30 - Coffee Break

# 16.30-18.00 – Practical Part (Session II): EXTRACTION OF DNA – ANCIENT DNA LAB Ivana Držaić, Vladimir Brajković, Vlatka Čubrić Čurik

**18.10-18.30** — **Wrap up & End of Workshop** (*Rajna, Ino, Preston, Vlatka*) Board and marker!