"An interdisciplinary analysis of migration to the Roman frontier in Dacia: the case study of Apulum's necropoleis''

The main objective of this PhD proposal is an interdisciplinary research focused on the historical, archaeological, and anthropological analyses of the Roman Dacia.

Dacia - a territory north of the Lower Danube - experienced multiple influences from the Thracians, Scythians, Greeks, and Celts through times. Eventually, it became a powerful kingdom that was added as a province to the Roman Empire. So far, there are only a few anthropological surveys about people inhabiting the Roman Dacia, and their bio-cultural profiles are far from being elucidated.

In order to clarify the biological characteristics of the Roman Dacians, the present research focuses on the most important center of Roman Dacia, the city of Apulum – the current city of Alba Iulia -, which was selected by the Romans for a military camp. Indeed, *Legio XIII Gemina* was stationed here, from the Roman conquest until the Aurelian withdrawal at the end of 3rd century AD.

South of the camp, emerged the canaba, that was the civilian settlement which developed close to legionary bases. Usually, the vicinity of a Roman castrum characterized the civilian areas, that were set originally for the purpose of housing military dependents and civilians. However, the relationship between the pristine role of the settlements and the development of the civil area into one of the most important Dacian centers was not investigated.

Accordingly, the research is focused on to the examinations of skeletons from the two main necropoleis of Apulum: Dealul Furcilor (South) and the Stadion (North).

A total of 320 skeletons from about 544 burials from the necropolis of Dealul Furcilor were examined through consolidated bioarcheological protocols in order to characterize the main anthropological indexes. In the meanwhile, selected individuals are going to be sumbmitted to molecular analysis in order to broaden the knowledge on the bio-cultural traits of ancient Dacians.

Specifically, stable isotope analysis of carbon and nitrogen will be conducted on bone bone collagen to disentangle the dietary preferences of people inhabiting *Apulum* in Roman times. The presence of significant burial goods (checked from publication or grey literature) suggesting a foreign origin and/or their status of “legionary” (pieces of caligae – typical Roman sandal worn by legionaries) would be leveraged for sample stratification and checking the differences between imported dietary customs and locally developed ones. Similarly, strontium isotopes detected on the teeth enamel and bone matrix would be informative of horizontal mobility to dissect the geographical origin of people buried in *Apulum* and to check the putative differences in people buried throughout the two funerary areas.

Moreover, the genomic evaluation of a sub-sample will be critical for the identification of the genetic legacies of people coming to *Apulum* as legionaries, rather than people moving to the city from the surrounding areas, whose genomic makeup should differ from the military people substantially. Accordingly, teeth and petrous bone from selected individuals will be leveraged to extract aDNA in a dedicated facility that will avoid modern contamination to assure a proper population genomics reconstruction of the relationship of people buried in one of the most important centre of the Roman world far from Rome.