UNIVERSITÀ DEGLI STUDI DI PALERMO

Dottorato di Ricerca in Biomedicina e Neuroscienze

Coordinatore: Prof. Felicia Farina

Sede Amministrativa: Dipartimento di Biomedicina Sperimentale e Neuroscienze Cliniche

AVVISO DI SEMINARIO

Mercoledì 26 Novembre 2014, **ore 15:00**
Aula "E. Nesci", Sezione di Anatomia Umana
Dipartimento di Biomedicina Sperimentale e Neuroscienze Cliniche
Via del Vespro 129, Palermo

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The wonders of archaeogenetics: a 45′ R/T journey to prehistoric Europe

Abstract. Archaeogenetics is the term that in 2001 the archaeologist Colin Renfrew coined for a newborn discipline which applied molecular genetics to questions of early human population history. Perhaps, the most important achievement by this new discipline has been the spatial and temporal reconstruction of the movements of ancient humans to occupy the entire planet Earth after they left Africa 60,000 years ago. Most of this work was done using uniparental genetic markers from mtDNA and Y-chromosome to unravel the genetic footprints of our ancestors, still visible in present-day humans. Despite important progress on our understanding of prehistory at a global scale, it has been more difficult to unravel the early human population history at the regional level. In this context, Europe stands out as a very interesting case-study due to its complex prehistory which also includes important geological and climatic events. Several, and even alternative, demographic models have been proposed for ancient Europeans based on genetic data, while leaving unanswered several important questions. In recent years, new technological developments allowing improved methods for the isolation of ancient DNA, as well as whole-genome sequencing and SNPs typing of nuclear (biparental, recombining) DNA have open a new perspective in the study of the human past. During my talk I will discuss new hypotheses on the origins of Europeans based on the application of the above technological developments and an effective integration of ancient and modern DNA data

Brief biosketch: Since 1998 I am associate professor of Applied Biology at the University of Palermo. Before 1998 I have spent several years abroad working at various research institutions in USA and Europe. My main interest has been the study of human hereditary diseases affecting nervous system development (e.g., PKU, FRAXA, autism) by applying the methods of molecular genetics and more recently genomics and bioinformatics. Another strong interest in the last 15 years has been the use of archaeogenetics to study the genetic prehistory and history of European and Mediterranean populations.