



## PhD course in Mediterranean Agricultural, Food and Forest Systems (SAAFM)

## Seminar July 9th 2021

## REPRODUCTIVE BIOTECHNOLOGY APPLIED TO TRADITIONAL AND ALTERNATIVE LIVESTOCK FARMING

Genetic improvement programs are essential for increasing the profitability of livestock farming obtaining products adapted to the needs of the industry in a sustainable way. This improved potential should be achievable efficiently and in the shortest possible time. In this context, reproductive biotechnologies (artificial insemination using fresh or frozen sperm samples, in vitro embryo production, embryo transfer, sperm sexing) are the mainstays tools for spreading genetic improvement of selected features. However, a negative correlation between fertility and productive performance exists so it is crucial to identify parameters that can determine the male fertility at the earliest possible age. The development and application of reproductive biotechnology to small ruminant species not only will benefit to the well-established breeding programs (traditional livestock breeds) but also to the conservation of autochthonous endangered breed which represents a great source of biodiversity, as well as to the alternative livestock species such as deer which nowadays are becoming more relevant worldwide.

Speaker

## OLGA GARCÍA-ÁLVAREZ

Olga García-Álvarez is a Postdoctoral Researcher of the Animal Production Area from the Department of Agroforestry Science and Genetics at Faculty of Higher Technical School of Agricultural and Forestry Engineers (University of Castilla-La Mancha). She is veterinary and her research is focused on the study of gametes physiology and interaction, sperm cryobiology and the effect of environmental heat stress on male' reproduction ability, in order to develop new reproductive biotechnology applied to small ruminant species (domestic and wild).

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