



UNIVERSIDADE  
DE ÉVORA

**III International Meeting of the  
Portuguese Society of Genetics**

27<sup>th</sup> > 28<sup>th</sup> June 2022

# **III International Meeting of the Portuguese Society of Genetics**

**27<sup>th</sup> and 28<sup>th</sup> June 2022**

**Auditorium of the Colégio Espírito Santo, University of Évora**

# **Book of abstracts**

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Dear participants,

It is our great pleasure to welcome you to the **III International Meeting of the Portuguese Society of Genetics**, held in Évora on the 27<sup>th</sup> and 28<sup>th</sup> of June 2022. We have put together a two-day program, organised in five different sessions and focused on encouraging scientific discussion.

As in the previous editions, this Meeting is dedicated those who work or are interested in the different areas of Genetics. The program will reflect the diversity of subjects within Genetics, with special focus on Animal Genetics, Plant Genetics, Microbial Genetics, Biomedical Genetics and Evolutionary Genetics. Invited speakers with outstanding careers will set the tone to a Meeting that we hope will be a great opportunity to present and discuss the latest advances in Genetics.

The III International Meeting of the Portuguese Society of Genetics (IMPSG) will take place at an Auditorium located at the most emblematic building of the University of Évora, the Colégio Espírito Santo.

The organizing committee, on behalf of the University of Évora and of the Portuguese Society of Genetics, welcomes researchers and also students working in the field of Genetics to this two-day Meeting, in which we will get back to the interactions of an in-person meeting, sharing experiences and knowledge, and enjoying the scientific atmosphere of Évora.

Finally, we wish to thank the scientific committee for their key role in many important aspects of this meeting. We hope that all the participants enjoy the IMPSG and appreciate the beautiful city of Évora, an UNESCO World Heritage. In this book of abstracts you will find all the detailed information regarding the meeting, including the scientific program and a list of all participants.

Welcome to Évora!

The Organizing Committee,

Ana Alexandre

Hélia Cardoso

Fátima Duarte



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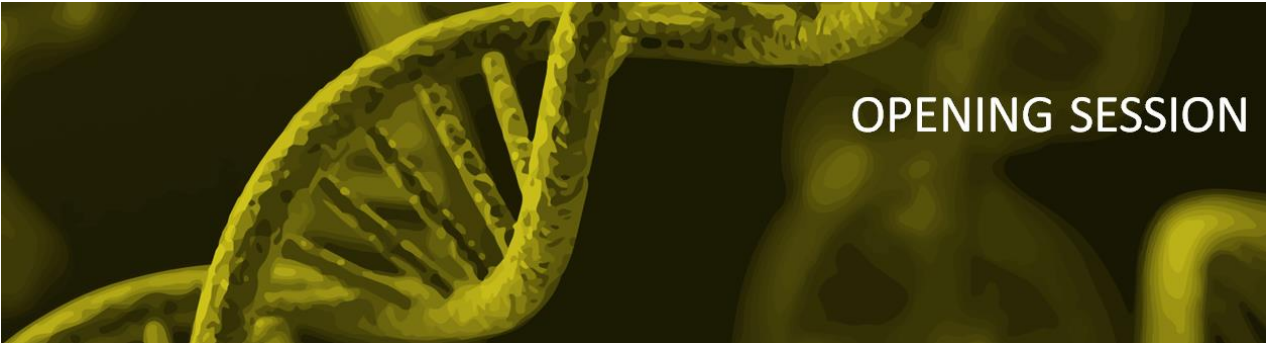
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## Analysis of sequence variability of prion protein gene (*PRNP*) in Portuguese cervid populations species: Red deer, Fallow deer and Roe deer

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Transmissible Spongiform Encephalopathy (TSE) or prion diseases are a family of neurodegenerative diseases caused by lethal infectious pathogens called Prions. Among the transmissible spongiform encephalopathies (TSEs), chronic wasting disease (CWD) in cervids is now the rising concern in wildlife within Europe, after the first case was detected in Norway in 2016, in a wild reindeer and until October 2021, a total of 40 cases were described in Norway, Sweden and Finland. The study of the genetics of the prion protein gene, *PRNP*, has been proved to be a valuable tool for determining the relative susceptibility to TSEs. In the present study we analyzed the exon 3 of *PRNP* gene in 235 samples from three Portuguese cervid species: red deer (*Cervus elaphus*), fallow deer (*Dama dama*) and Roe deer (*Capreolus capreolus*). One synonymous – codon A136A – and two non-synonymous variations - codon T98A, codon Q226E - were found in red deer while no sequence variation was found in fallow deer and roe deer. All animals in the present study, were previously screened and were negative for the presence of CWD. The comparison of our population with North American populations, suggest that the free-ranging deer from our study may present susceptibility to CWD, although lack of experimental data and the necessity of large survey are necessary to evaluate these populations. The establishment of risk assessment projects, even in countries with no cases of CWD is very important to forecast possible contaminations.

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