



Invited Speaker 31

Innovative Studies on Alentejano, Bísaro and Ribatejano Pigs

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The ICAAM/MED team focused in swine science integrates researchers with skills and knowledges in different areas, namely: production systems, genetics and genomics, reproduction, nutrition, specific aspects of physiology (lipid metabolism, lactation, newborn piglets), and carcass, meat and meat products quality. The main research focus has been the local Alentejano (AL) breed produced in extensive systems although some works have been made in intensive production systems with modern improved genotypes. The facilities available at ICAAM/MED in the University of Évora allow animal field studies, collection and preservation of samples, as well as their laboratory analyses. One good example of the team multidisciplinary is our participation in the recently finished TREASURE project (<https://treasure.kis.si/>), that allowed the acquisition of new data on Portuguese AL and Bísaro (BI) local breeds, along with innovative information about the cross between those breeds, the Ribatejano (RI) pig. Our main task during the project was to compare AL, BI and RI pigs concerning their performance, carcass, and meat and traditional dry-cured meat products (“Paços”) quality. Preliminary results of these works showing the potential interest of RI pigs and their products were presented in international scientific meetings, two scientific papers have been published and three manuscripts are being prepared for publication. Genetic studies in collaboration with INIA (Spain) also provided new information about the genetic diversity associated to production and quality traits in AL pigs. Some main results of these studies were published [1] and revealed few genes with mutational variability that would allow marker assisted genetic improvement programs. Furthermore, transcriptomic analyses of AL and BI muscle and fat tissues done in collaboration with INIA are being analysed. The initial outputs show differences in gene expression between these two breeds of different genetic origin. The recognized successful participation in this project, together with its achieved and expected outputs, encourage the team to proceed their research on these topics.

Keywords: swine; Treasure project; local breeds; performance; meat and dry-cured meat products quality; genomics

1. Muñoz, María, Bozzi, Riccardo, García, Fabián, et al. (2018) Diversity across major and candidate genes in European local pig breeds. PLoS ONE 13(11): e0207475.

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