**CHIANINA AND MARCHIGIANA BREEDS: EFFECT OF SOME SNPs IN CANDIDATE GENES FOR MEAT PRODUCTION**

LASAGNA E.*, LANDI V.***, CECCOBELLI S.**, FILIPPINI F.****, ALBERTINI E.*, SARTI F.M.*, PANELLA F.*

*) Dipartimento di Biologia Applicata, Università degli Studi di Perugia, Borgo XX Giugno 74, 06121 Perugia, Italy
**) Dipartimento di Scienze Animali, Università di Padova, Viale dell’Università 16, 35020 Legnaro (PD), Italy
***) Departamento de Génetica, - Universidad de Córdoba, Spain
****) Associazione Nazionale Allevatori Bovini Italiani da Carne, San Martino in Colle, Perugia, Italy

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At present, Breeders Associations are asking for some new selection strategies mainly because current methods require long time to achieve a good accuracy; therefore marker assisted selection (MAS) can be considered as a new efficient tool.

A preliminary bibliographic survey allowed us to identify 26 SNPs putatively correlated with beef cattle growth and meat production traits.

DNA samples from 249 Marchigiana and 365 Chianina sires, tested in performance test, were sent to KBioscience to be genotyped. Only 15 SNPs belonging to 11 genes showed to be polymorphic in both the breeds. For some of them an association with production traits was also observed.

SNP6 (GDF8) showed, both in Chianina and Marchigiana, an heavier weight at birth, an higher muscolarity score and a bigger dimension genetic index (100 ± 10) associated with the genotype AA (45.43 kg – 424.21 – 105.66) vs AT (43.65 kg – 400.84 – 103.91) and TT (44.64 kg – 403.94 – 104.87).

Similar results were observed in Marchigiana for genotype GG vs AG and GG in SNP9 (GHRL) and in Chianina for genotype TT vs CT and CC in SNP16 (IGF2).

These results allow us to suppose some effects of the investigated SNPs on beef traits both in Chianina and Marchigiana breeds; therefore if these results will be confirmed on a larger dataset, these SNPs could be suitable to select the calves to be tested in the performance station.

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