



TOPIC: Molecular Cytogenetics and Gene Mapping



Poster



Oral

TITLE: Genomic analysis of cattle rob(1;29)

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TEXT:

Robertsonian translocation (rob) involving chromosome 1 and 29 represents the most frequent chromosome abnormality observed in cattle breed intend for meat production. The negative effects of this anomaly on fertility are widely demonstrated and in many Countries screening programs, in the aim to eliminate carrier subjects from reproduction, are currently performed. Despite of rob(1;29) was first observed in 1964, the genomic structure of this anomaly is still partially unclear. In this work we demonstrated that, during the fusion process, around 5.4 Mb of pericentromeric region of BTA29 move to proximal q-arms of rob(1;29). Moreover, we clearly showed, by dual color FISH technique, that this fragment is inverted. Finally we showed no deletion/duplication occurs during the fusion process originating the rob(1;29).

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