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**Poster Abstract – G.12**

# ANALYSIS OF 5S rDNA SEQUENCES IN *VITIS VINIFERA* L.

E. FALISTOCCO, V. PASSERI, GP. MARCONI

Department of Plant Biology and Agro-environmental and Animal Biotechnology, University of Perugia, Borgo XX Giugno 74, 06121, Italy - egiziaf@unipg.it

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The 5S ribosomal genes and their associated non-transcribed spacer (NTS) regions were investigated in five genotypes of grapevine. The 5S rDNA sequences were isolated by PCR using two primer designed in such a manner to isolate the complete NTS sequence and the adjacent transcribing regions. Genomic DNA amplification revealed two fragments of different length in all plants analyzed with the exception of one cultivar in which an additional fragment, notably shorter, was found. The analysis of the clones revealed the presence of three types of 5s rDNA repeats which differ for the length of the non-transcribed spacer. These variants were denominated Long-repeat, Short-repeat and DEL-short-repeat. The Long and Short type differ each other not only for the length but also for nucleotide composition which showed a remarkable heterogeneity. Instead DEL-short-repeat appeared a variant of the short repeat type from which differs for a deletion of 60 bp. In order to verify the organization of the 5S repeat variants the primers SC and SL were designed on the sequence of the short and long spacer, respectively, and used for PCR amplification. The sequence analysis of the obtained fragments demonstrated that the three variants coexist into the same array, moreover fluorescent *in situ* hybridization showed that they are clustered into a single locus.