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Abstract Book

Natacha Vieira, Nelson Saibo,
M. Margarida Oliveira (Eds.)

Sociedade Portuguesa de Fisiologia Vegetal

S2/P35: CHARACTERIZATION OF A GLYCOSYLASE FAMILY GENE SPECIFICALLY EXPRESSED DURING WINTER DORMANCY IN WOODY PLANTS

Daniel Conde, Alicia Moreno-Cortés, Tamara Hernández-Verdeja, Pablo González-Melendi, Isabel Allona.

Centro de Biotecnología y Genómica de Plantas (CBGP, UPM-INIA), Departamento de Biotecnología. Universidad Politécnica de Madrid, Campus de Montegancedo, Pozuelo de Alarcón, E-28223 Madrid, Spain. d.conder@alumnos.upm.es

Winter dormancy is the strategy used by perennial plants to survive the harsh conditions of winter in temperate and cold regions. This complex mechanism is characterized by cessation of the meristems activity, which is accompanied by the bud set, the acquisition of a high tolerance to the cold temperatures and, in the case of deciduous trees, by the senescence and leaf abscission. In long-lived forest species, the length of the dormancy period limits the growing season, affecting wood production and quality.

A Suppression Subtractive Hybridization (SSH) enriched in genes overexpressed during the process of winter dormancy in chesnut stems identified a DNA glycosylase gene. In order to study its role in the establishment and maintenance of the winter dormancy, a molecular characterization and seasonal expression were performed. Furthermore, we have obtained poplar transgenic plantlets overexpressing the chesnut gene.

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