

Successes on in vitro Isolated Microspores Embryogenesis

Authors : Zelikha Labbani

Abstract : The In Vitro isolated micro spore culture is the most powerful androgenic pathway to produce doubled haploid plants in the short time. To deviate a micro spore toward embryogenesis, a number of factors, different for each species, must concur at the same time and place. Once induced, the micro spore undergoes numerous changes at different levels, from overall morphology to gene expression. Induction of micro spore embryogenesis not only implies the expression of an embryogenic program, but also a stress-related cellular response and a repression of the gametophytic program to revert the microspore to a totipotent status. As haploid single cells, micro spore became a strategy to achieve various objectives particularly in genetic engineering. In this study we would show the most recent advances in the producing haploid embryos via In Vitro isolated micro spore culture.

Keywords : haploid cells, In Vitro isolated microspore culture, success

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