

CHAPTER 6

BOTANY

Doctoral Thesis

036. RAVINDRA KUMAR
Isolation and Identification of Genes Involved in Development and Differentiation in Anthers of *Nicotiana Tabacum* by Suppression Subtractive Hybridization.
Supervisors : Prof. R. K. Kale and Dr. Veena Agrawal
Th 14698

Abstract

Concludes that anther development is highly coordinated stage of plant development. Genes expression during anther development is highly specialized event and requires the up/down regulation of some specific genes. Data revealed that during the development of male gametophyte with the expression of anther specific genes, structural, cellular metabolism, defense, cell division, stress, protein synthesis and processing, transporters, signaling, photosynthesis and various other biosynthetic genes also express. A change in expression of some genes by external factors may induce embryogenesis. Further, these specific genes have to be identified and characterized.

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