Article Side

Double fertilization in flowers by Seolncr

Article published on February 4th 2012 | Business

Inangiosperms the female gametophyte or embryo sac is formed, usually by 8 cores haploid distributed among 7 cells . The central cell of the embryo sac is one that contains two nuclei, called polar nuclei. The generative cell of the embryo sac is the oosphere or egg cell. The male gametophyte , however, is made at the time of pollination, three centers: a vegetative nucleus and two generative nuclei.

Because the two mergers of cores, it is called double fertilization . The zygote form the embryo after successive mitotic divisions and endosperm will be the nutritional tissue commissioned to withstand the initial growth of the embryo. Both the embryo and endosperm, are the seeds that give rise to a new plant.

The double fertilization was discovered by the Russian botanist Gavrilovich Navashin Sergey , who worked at that time in the Botanical Garden of the University of Kiev (Ukraine) in 1898 . Until recently it was believed that the phenomenon of double fertilization was unique to angiosperms, but recently found double fertilization in Ephedra and Gnetum , both gymnosperms . Not being close relatives of angiosperms, it has been hypothesized that double fertilization appeared independently in the two groups.

The embryogenesis in dicots is the set of processes physiological leading to the transformation of a single cell, the zygote , in an individual-the more complex multicellularembryo - contained in the seed plants mature angiosperm group of dicotyledons . This whole process requires a fine regulation of many elements of development , leading to the development of basic morphologies (morphogenesis), the establishment of functionally organized structures (organogenesis) and differentiation tissue.

The generation of a functional organism from one cell, requires spatial coordination and acquisition of numerous cellular identities. The study of patterns in the embryology of plants, to understand the cellular organization in growth of these and so it gives us tools for handling. During embryogenesis of plants gives rise to a structure called a seed which is the initial unit that serves as a reference for future positional modeled structures. The adult develops from the guidelines dictated by the apical meristem, which is visible in embryos that are about 100 cells. Therefore the study of these early stages to elucidate the mechanisms that generate different axes of growth and pre-structured functional patterns.

The zygote , diploid cell produced through the double fertilization , is divided transversely into two cells: the micropylar cell or basal cell , which is divided transversely repeatedly to form a structure of the embryo called suspensor , and the chalazal cell or terminal that is divides vertically.

In the suspensor can distinguish a basal cell closest to the micropyle , very large, vacuolated , with an extensive network of projections in its cell wall , which is involved in the nutrition of the embryo, and various cells calazales soon degenerate. The basal cell lives a little longer but eventually also disappears. As the suspensor grows, pushes the embryo into tissue nutrient that is forming.

In cells derived Cell chalazal another division occurs vertical, in a plane perpendicular to the first. Then these four cells (called quadrant) are divided transversely into eight cells (called octant). These are divided periclinalmente to form a globular structure. Divisions continue until the globular embryo consists of 64 cells. In this state differ protodermis from the surface cells.

Then the embryo's cells initiate a program of continuing divisions and morphogenesis that leads to the formation of the meristems apical. The divisions are located side two prominences are the cotyledons . The embryo takes the form of body and heart-shaped.

http://www.yongefloristmississauga.ca/

Article Source:
http://www.articleside.com/business-articles/double-fertilization-in-flowers.htm - Article Side

SeoIncr - About Author:
a Florists mississauga a Canadian leading online flower shop. The same day a flower shop mississauga. Premium quality - affordable prices visit now http://www.yongefloristmississauga.ca/

Article Keywords:
flower shop mississauga, florists mississauga