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Academic Staff College

Dept.BT

1-day orientation on Transgenic Technology

09.08.2016

A 1-day orientation guest lecture was arranged for all the faculty members of Dept. of Biotechnology on "Transgenic Technology by Dr.MSR Krishna, Asst.Prof. Dept.Bio Technology, K L University on 09.08.2017 at BT Conference Hall, KL University.

Transgenesis is the process of introducing an exogenous gene called a transgene – into a living organism so that the organism will exhibit a new property and transmit that property to its offspring. Transgenesis can be facilitated by licosomes, plasmed vectors, viral vectors, pronuclear injection, protoplast fusion and ballistic DNA injection. Transgenic organisms are able to express foreign genes because the genetic code is similar for all organisms. This means that a specific DNA to this similarity in Protien points and add other genes. An example of this is the "Super mice" of the 1980s. these mice were able to produce the human protein tPA to threat blood clots.

The desired gene construct is injected in the pronucleus of a reproductive cell using a glass needle around 0.5 to 5 micrometers in diameter. The manip ulated cell is cultured in vitro to develop to a specific embryonic phase, is then transferred to a recipients female. DNA microinjection does not have a high success rate (roughly 2% of all injected subjects) even if the new DNA is incorporated in the genome, if it is not accepted by the germ-line the new threats will not appear in their offspring. If DNA is injected in multiple sites the chances of over expression increase.