

Special lecture on Molecular biology techniques

The Department of Zoology conducted a special lecture on 08.08.2019 under DBT STAR College scheme. Dr. M. Akbarsha, Research Co-ordinator, of our College delivered a lecture on the topic "Molecular biology techniques". Initially he stated that it is branch of Biology that deals with the molecular basis of biological activity. He said that the techniques concern with the complete understanding and interactions between various systems of cells like DNA, RNA and protein synthesis. He recollects expression cloning method, which is one of the basic techniques to study protein function. He also stated that Polymerase Chain Reaction (PCR) is an extremely versatile technique for copying DNA and added many of its variations like RT-PCR for amplification of RNA; Real time PCR for quantitative measurement of DNA and RNA molecules. He also pinpointed several blotting (Southern, Western and Northern) techniques in a brief manner.

In modern days, procedures and technologies are continually being developed. He described that as a focus of automation, user friendly and cost effective, the microarrays have been developed. *Finally he said about the high resolution banding pattern of chromosomes. He also explained Fluorescence in situ Hybridization (FISH) is a powerful technique that can reveal submicroscopic abnormalities even in non-dividing cells. He concluded thus Molecular biology plays important role in understanding formations, actions, and regulations of various parts of cells which can be used to efficiently target new drugs, diagnose disease, and understand the physiology of life.*