

## Research facilities

The department of Biotechnology is very well equipped with all the research facilities as follows:

- **Animal Cell Culture facility** (Biosafety cabinets, laminar flows, CO<sub>2</sub> incubators, inverted and fluorescent microscopes, etc. in **two** separate facilities; one for M.Sc. programme and other for Ph.D. programme. There are separate rooms for sample preparation and culture).
- **Plant Tissue Culture facility** ( Department has excellent plant tissue culture facility and Centre for Transgenic Plant Development which includes Metabolic Engineering Laboratory, Instrumentation room, Transformation room (microorganism), Transformation room (plant), Media preparation room, Greenhouse/Polyhouse, Nethouse, Transgenic Containment Facility etc.).
- **Centre for Transgenic Plant Development**  
This is a **unit of Department of Biotechnology**. It is equipped with the state of the art facilities to train the PhD and post-doctoral students and to carry out research in various disciplines of plant and microbial biotechnology. The major R & D activities being pursued include cloning and characterization of novel genes linked with tolerance to biotic and abiotic stresses and quality traits of medicinal and crop plants, authentication and standardization of crude components of herbal formulations and nano vehicle assisted gene delivery in plants. The thrust areas of centre also include improving the quality of medicinal crops through genetic engineering of metabolic pathways; in vivo and in vitro conservation of medicinal plants; developments of easy, rapid, sensitive, cost effective method for aflatoxigenic mould detection in the groundnut kernels and soil and identification and quantification of aflatoxins in the food and feed. The centre has received grants from government agencies such as DST, DBT, Department of AYUSH, CCRUM, CSIR, ICMR, DRDO etc. for R & D projects carried out at the Centre.
- Well-equipped labs to conduct experiments related to **Genetic Engineering and Molecular Biology**.

- **High-End Equipments**

Confocal microscope (SPE, LIECE Microsystems)

Gas chromatography mass spectrometer (Agilent 5977B)

Real-time PCR machines (CFX 96 and CFX Opus 384, Bio-Rad)

ChemiDoc XRS + Image Lab Software (Bio-Rad)