



Greenhouse facility

Established in 2005, Medicinal Plants Garden is among the various infrastructure facilities available in the campus of CSJMU, Kanpur. It houses several species (98 species) of medicinal and aromatic plants, which are well documented in our traditional as well as modern pharmacopeias. The species maintained are utilized for teaching, demonstration and research activities. The economically / medicinally important plant parts (seeds, leaf, inflorescence, stem, bark, root, flowers etc.) are harvested at maturity, dried and used by the School of Pharmaceutical Sciences for downstream research activities such as making aqueous or organic solvent extracts. These are then used for activity testing on animal models under controlled experimental conditions in animal house facility.

In addition, 3 greenhouses (3500 sq. ft.) and 1 shade net (1600 sq.ft.) infrastructure facilities are operational in the premises of Medicinal Plants Garden. The polyhouses are spread across three rooms with controlled environment. The polyhouses are equipped with control systems (light, temperature, and humidity) and fan cooling systems. These facilities are being utilized for research purposes by faculty and students of Life Sciences & Biotechnology Department, and School of Advanced Agriculture Sciences and Technology. Hybrid varieties of vegetables and ornamentals are being grown in polyhouses for demonstration and teaching activities of students perusing Agriculture. Students learn and get hands on exposure to protected cultivation in polyhouses, shade nets, hydroponics, drip irrigation etc in these high-tech facilities. Shade net facility is being used for horticulture purposes such as nursery development and maintenance of germplasm and other ornamentals and foliage plants.



Figure: 1 shows the inside view of Green house, nursery of growing plantlet is seen



Figure: 2 outside view of Green House

Animal House

The CSJM University has its own institutional Animal Ethics Committee constituted specifically to address scientific and ethical considerations of animal use for research. Animal House of CSJM University was established in 2012 for the purpose of conducting preclinical (Animal) studies for the Drug Discovery and Drug development, which is required for the Investigational New Drug (IND) application to the regulatory agencies. The Animal House is also registered with the Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Ministry of Environment and Forests, Government of India for conducting experiment on small animals. It fulfills the requirements of standards of national regulatory agency i.e. CPCSEA. Our aim is to facilitate the animal house facility as center for excellence in the area of therapeutics with special animal models for drug discovery for various disease like cancer, ulcer, urolithiasis, pain, inflammation, Arthritic, etc.. Salient Features of Animal House of CSJM University:

1. Well designed and established animal house approved by CPCSEA for the purpose of education and research (Reg. No. -1589/GO/Re/S/12/CPCSEA).
2. We have an Institutional Animal Ethics Committee (IAEC) for the approval of research and project proposals which involves the use of the animal.
3. All activities of the Animal House Facility are carried out as per standard operating procedures (SOPs).
4. The Animal House Facility maintains the records of activities as well as maintenance and experimentation records of the animals as per the statutory requirement of CPCSEA.
5. The animal house supports various research programs in the research areas of Preclinical Pharmacology, Biochemistry, Toxicology, etc
6. Two of the major project granted by DBT utilizes the animal house facilities.
7. The animal house facility for M. Pharm. students plays an important role for their dissertation work and routine experiments



Figure: 3 Students of Pharmacy Department working in Animal House

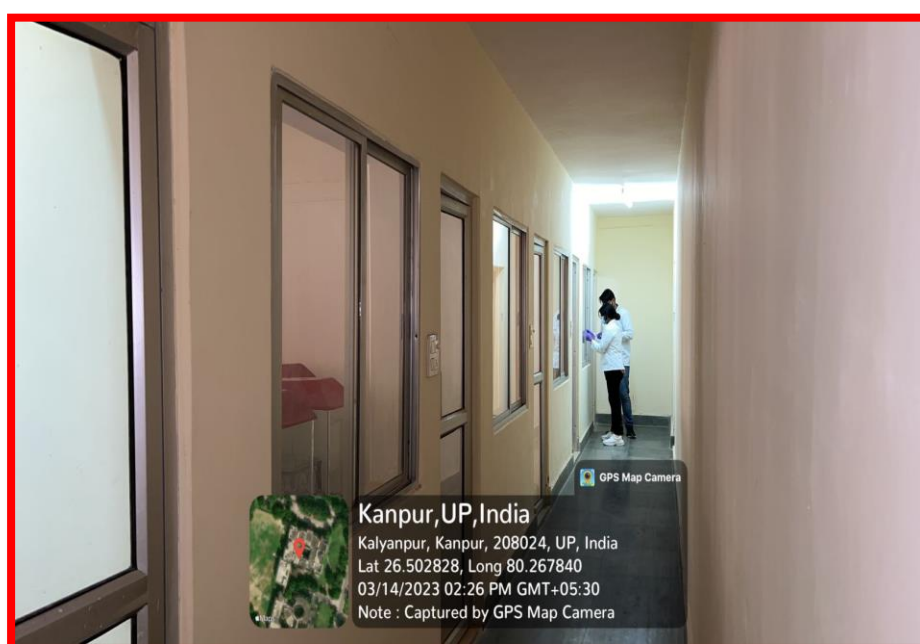


Figure: 4 Gallery View of Animal House shows that restricted entry is there in animal house with all safety/hygiene guidelines