SAPTHAGIRI COLLEGE OF ENGINEERING
(Affiliated to Visvesvaraya Technological University, Belagavi& Approved by AICTE, New Delhi)
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DEPARTMENT OF BIOTECHNOLOGY

INDUSTRIAL VISIT REPORT – JUBILANT BIOSYS

As per the Principal direction and permission, the department organised one day industrial visit to Jubiliant Biosys , located in Yashwanthpur industrial area for final year biotechnology students on 20th September,2019. Assistant Professors Mrs Soumya C and Mrs Kavya M V accompanied the students.

Jubilant Biosys is an innovation driven company that deals with life science ingredients, pharmaceuticals, and drug discovery solutions.

The visit started with Initial presentation on Jubilant Biosys. The presentation described about the company s work in various fields. A highly informative flowchart on drug discovery – a multi-disciplinary team work was explained.. A brief note on various assays, compounds and the optimum conditions maintained were also described in presentation.

The students were then divided into a group of two and each group were made to visit the chemistry and biology departments alternatively.

Department of Chemistry:

The highly sterile analytical lab was shown to the students. No students or faculties were allowed to enter the labs as it was strictly prohibited due to high chances of contamination. Various instruments like HPLC, TLC plate, MPLC, climate chamber, Lyophilisation chamber and their principles were shown and explained. The optimum conditions to be maintained were also told. This lab also had an LCMS and NMR spectroscopy instruments, which are highly sensitive and hence no one were allowed to enter the labs.

Department of Biology:

The biology department mainly deals with the target molecule and biochemical assays. The enzyme assay is initially performed, followed by cellular assay to produce cells invitro and apply them in the field of pharmacology. The students were first taken to the screening area where the molecule is selected and virtual screening is performed. Here, REMP is used as a storage system that can store about 8,00,000 compounds. The next instruement shown was Neflostat (measures turbidity of the cells), followed by DMPK chamber (for ADME analysis) and LCMS to obtain the drug concentration. The students were introduced to the primary tissue culture labs where the living cells are cultured.

The students were then made to visit the animal house area (GLP lab), which is government approved and internationally accepted. Here, the drug is tested on rats in vivo (in vivo pharmacology). The immune compromised lab was shown, where there were nude rats, that is, rats with no hair.

The last lab had an X-ray crystallisation unit that contains information about the crystal/protein structure.

This industrial visit gave an exposure to students in drug discovery methodologies, practicality of biotechnology in industry and use of highly advanced instruments. The students can work as interns, undertake their master degree's project. They can be contacted through:

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Jubilant Biosys (Yeshwanthpur), 20TH September 2019.