



JSS ACADEMY OF HIGHER EDUCATION & RESEARCH, MYSURU

(DEEMED TO BE UNIVERSITY- ACCREDITED 'A' GRADE BY NAAC)

JSS COLLEGE OF PHARMACY, OOTY

(ISO 9001:2015 CERTIFIED)

Summer Internship and Training Program

on

**PROSPECTIVE APPROACH ON BIOTECHNOLOGY, CELL CULTURE
AND BIOINFORMATICS RESEARCH**

06th – 25th May 2019

INTERNSHIP REPORT

ORGANIZED BY

DEPARTMENT OF PHARMACEUTICAL BIOTECHNOLOGY

JSS COLLEGE OF PHARMACY, OOTY

Report on Summer Internship and Training Program

PROSPECTIVE APPROACH ON BIOTECHNOLOGY, CELL CULTURE AND BIOINFORMATICS RESEARCH

Date: 06th – 25th May 2019

Venue: Dept. of Pharmaceutical Biotechnology, JSSCoP

Program Organized By:

Program Report Submitted By:

Dept. of Pharm. Biotechnology
JSS College of Pharmacy
Ooty

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Program Co-Ordinator

The Department of Pharmaceutical Biotechnology organized Three Weeks Summer Internship and Training program entitled “Prospective Approach on Biotechnology, Cell Culture and Bioinformatics Research” 6th – 25th May 2019. The program started with interaction session with participants and the team from JSS College of Pharmacy, Ooty. The Principal briefed about the facilities available in the institute and wished the participants fruitful learning experience. The organizing secretary Dr. Ashish Wadhvani briefed about the objective of the program and schedule for three weeks. A total of 20 students from from different organizations viz., Nehru Arts & Science College, Coimbatore – 13 students; Karunya Institute of Technology, Coimbatore – 02 Students, Avinashilingam Institute, Coimbatore – 01 Student, Bharathidasan University, Tiruchirappalli – 03 Students, Kongunadu Arts & Science College, Coimbatore – 01 Student participated in the program.

The program was divided into 06 guest lectures and 10 hands of training sessions.

During the training students were familiarized with the **animal cell culture techniques** – laboratory biosafety, basics of cell culture, cell line passaging, cell counting, preparation of media and the components, significance of the equipment used in a tissue culture lab; **Bioinformatics** - Database, data formats, drug ligand binding studies, gene manipulation technique using CRISPR/CAS9, designing gRNA etc; **Molecular Biology** – Preparation of Buffers, Isolation of DNA from various sources, agarose gel electrophoresis and hands on training of PCR; **Microbiology** –

Preparation of Medium, Microbial assay, sterility testing of pharmaceutical preparations and biological examination of water.

Also the exposure was given to the students for **animal experiments (Dept. of Pharmacology), Analytical Techniques specifically LC-MSMS (Dept. of Pharmaceutical Analysis) and Formulation Development (Dept. of Pharmaceutics)**. As part of training the students were taken to field visit to **Pasteur Institute of India, Coonoor** where the students visited vaccine manufacturing unit, GMP animal house facilities and the Pasteur museum.

As Ooty being Queen of Hills and as a curtesy extended by the Principal, the students were taken for sightseeing to Avalanche which was well appreciated by the students.

The participants were requested to give their **feedback** on the program where most of the participants appreciated the practical sessions and hands-on training provide during the course of the program and the support received from department PG students. Few of the students expressed their interest to join back the department for caring out their project work by next year.

The informal **valedictory function** was organized at Board Room of the College where The Principal interacted with the students and received the feedback of the program and distributed the certificates to the participants.



