



Little Flower Degree College

(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

LEAD TO ILLUMINATE



BIO TECHNOLOGY
2018-19



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DEPARTMENT OF LIFE SCIENCES FACULTY OF BIOTECHNOLOGY

ACADEMIC YEAR 2018-19

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1	14.07.2018	Guest Lecture on Methods for diagnosis of human diseases	Seminar Hall, LFDC	30
2	27.09.2018	Field Trip- CSIR CCMB (Open Day)	CCMB, HYD	30
3	28.01.2019	Workshop – Industrial & Environmental Biotechnology	Biotechnology Lab, LFDC	20
4	30.01.2019	Field Trip to IGHGD	IGHGD, Begumpet, HYD	38
5	02.02.2019	Guest Lecture on Homology Modelling	Seminar Hall, LFDC	60



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GUEST LECTURE ON METHODS FOR DIAGNOSIS OF HUMAN DISEASES

Date: 14.07.2018

Topic: Methods for Diagnosis of Human Diseases

Venue: Seminar Hall, Department of Biotechnology, LFDC.

Speaker: Ms. A. Srilekha, Sr. Scientific Assistant, Dept of Cell Biology, Institute of Genetics and Hospital for Genetic Diseases, Begumpet, Hyd.

From the past few decades, the field of medical biotechnology is experiencing a remarkable growth heading towards the development of various innovative and precise techniques for diagnosing, treating and preventing dreadful diseases. Those novel technologies include Polymerase Chain Reaction, Gene Sequencing, Fluorescent in Situ Hybridization, Microarrays, RNA interference, Genome Editing, Use of Stem cells in regenerative medicine, Tissue Engineering etc. have significantly contributed towards improving health science.

In above perception, we organized a guest lecture to emphasize the importance of medical biotechnology among the students. Students from 1st, 2nd and 3rd year B. Sc (BTMC) participated in the guest lecture given by Ms. A. Srilekha, Sr. Scientific Assistant, Dept of Cell Biology, Institute of Genetics and Hospital for Genetic Diseases, Begumpet, Hyd.

She started her session with the significance of genetics, chromosomes, genes etc., in causing diseases. Then she continued her lecture explaining various genetic disorders and various chromosomes and their manipulation behind them. Then, she explained about various molecular techniques like lymphocyte culturing, chromosomal banding for karyotype analysis, various methods of prenatal diagnosis, advanced technology like fluorescent in Situ Hybridization (FISH), Comparative Genomic Hybridization (CGH), Spectral Karyotyping (SKY), and also emphasizing about job prospects regarding Genetics in medical field.

Finally, she concluded her lecture by saying **All things are difficult before they are easy**. Then there was an interesting questionnaire session went in between students and speaker. Finally, the speaker Ms. A. Srilekha was felicitated by our beloved principal Rev. Bro. Vincent Reddy.



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Students at seminar hall



Ms. A. Srilekha delivering her lecture.



Our Principal, Rev. Bro. Vincent Reddy felicitating the guest speaker Ms. A. Srilekha with memento



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FIELD TRIP TO OPEN DAY OF CSIR-CCMB

Date: 27.09.2018

Event: Celebration of CSIR foundation. Open Day of CSIR-CCMB
Venue: CCMB, Habsiguda, Hyderabad.

The Centre for Cellular & Molecular Biology (CCMB) is a premier research organization in frontier areas of modern biology. The objectives of the Centre are to conduct high quality basic research and training in frontier areas of modern biology, and promote centralized national facilities for new and modern techniques in the inter-disciplinary areas of biology. A field trip was conducted to CSIR- CCMB at Habsiguda, Hyderabad commemorating the foundation day of CSIR. Students and faculty of various life sciences' departments attended that event. Visit started with the process of registration and then students were taken around to visit the exhibits.

Young researchers in the various fields of biological sciences exhibited and explained their works to the students and visitors. They focused on how their research work is going to help the society and what applications and uses can be taken out of their works. Students were able to interact with the ignited minds, able to co relate the studies and clarify their doubts. The visit came to end with the day filled with the excitement to explore and necessity to develop research attitude among students.



Young Scientist explaining about the science and research behind Japanese Encephalitis virus



Interaction between students and researcher on the genetics of Drosophila



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WORKSHOP ON BASIC TECHNIQUES IN INDUSTRIAL & ENVIRONMENTAL BIOTECHNOLOGY

Date: 28.01.2019

Event: One Day WORKSHOP

Topic: BASIC TECHNIQUES IN INDUSTRIAL AND ENVIRONMENTAL
BIOTECHNOLOGY

Venue: Department of Biotechnology, LFDC.

Resource Person: Dr. K. Venkatesh, (PDF), Dept of Biotechnology, Jawaharlal
Nehru Technological University, Kukatpally, Hyderabad.

The Workshop was organized on 28th January 2019 for students of III BTMC. The event started with an inaugural session by our beloved Principal Rev. Bro. Vincent Reddy. The session started with a prayer and welcome note by the Head. It was followed by a message from principal. The Resource person was introduced to the students. Then the session was presided over by Dr. K. Venkatesh himself.

He started with the theoretical explanation of principles of techniques used in the Environmental Biotechnology field. A detailed concept of inter relation of Industrial and Environmental Biotechnology was made clear to the students by the resource person.

The second session consists of the practical demonstration. Following protocols of BOD, Citric Acid production, Quality check of Milk, COD and Wine Production was shown. An active participation of students in handling of materials and performing the experiments was seen.

The students were able to experience the different aspects of the lab and its uses. workshop came to an end with the felicitation of the resource person and vote of thanks. Students gave positive feedback and expressed their satisfaction of a day full of knowledge and practical insights.



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Our Principal, Rev. Bro. Vincent Reddy felicitating the guest speaker Ms. A. Srilekha with memento



Student participation in Workshop



Interactive session between students and the Resource person.



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FIELD TRIP TO INSTITUTE OF GENETICS & HOSPITAL FOR GENETIC DISEASES

Date: 30.01.2019

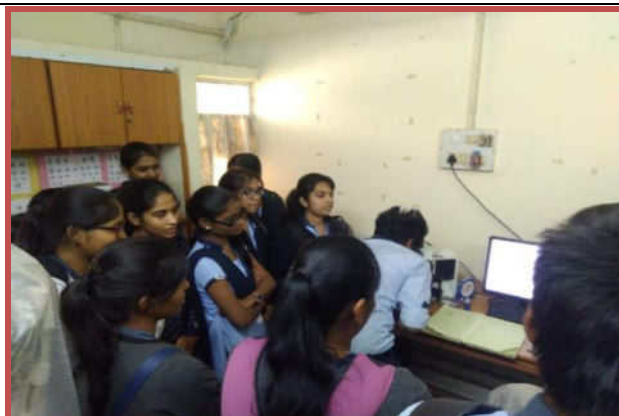
Venue: INSTITUTE OF GENETICS AND HOSPITAL FOR GENETIC DISEASES, BEGUMPET, HYDERABAD

The Department of Biotechnology organized a field trip on 30th January 2019 for I & III BTMC students. The place of visit was Institute of Genetics and Hospital for Genetic Diseases, Begumpet, Hyderabad. Institute of Genetics and Hospital for Genetic Diseases is a premier research organization established by Osmania University in the year 1978 with generous funding from UGC, DST and Govt. of Andhra Pradesh. First, inception session was started by Dr. M. L. N. Deepika from Department of Molecular Biology, introducing IGHGD to the students and explaining the importance of this institute and also explaining about the importance of genetics and genetic disorders in one's own life.

Then, the students were taken to various labs and were given explanation about current research studies running at the institute by their respective lab in charges. They were taken to Cell Biology lab, Environmental Toxicology lab, Molecular Biology lab, Clinical Genetics lab, Clinical Biochemistry lab and Clinical Psychology lab and were explained by various techniques and various instrumentations. This field trip gave students valuable information about human genetics and the role of chromosomes in genetic disorders. The visit came to end with the day filled with the excitement to explore and necessity to develop research attitude among students.



Faculty and students with the Director of the institute Dr. A. Venkateshwari



Students looking into the various samples of genetics work at the cell biology laboratory



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GUEST LECTURE ON METHODS FOR DIAGNOSIS OF HUMAN DISEASES

Date: 02.02.2019

Topic: Homology Modeling

Venue: Seminar Hall, Department of Biotechnology, LFDC.

Speaker: Dr. Altaf Ali, Associate Scientist, Excella Knowledge Solutions Pvt Ltd, Hyderabad.

The Guest Lecture was organized on 2nd February 2019 for students of BTMC. The event started with an inaugural session. The session started with a prayer and welcome note by the Head. Profile reading of Dr. Altaf Ali sir was done and was followed by a message from principal. The resource person introduced himself to the students. Then the session was presided over by him. He started with an introductory explanation of principles of gene regulation, gene expression. He went on explaining about protein formation, significant and various concepts of Molecular biology.

Then he gave a detailed concept of inter relation of Bioinformatics and molecular Biology. this was carried on with focus on homology modelling, how it is done, what is its use in field of biology. An example of homology modelling was shown to the students. this went on with various methods available for building of protein structures. An active interaction session was followed where the curious minds got their doubts clarified from the resource person. Finally, the lecture ended and Dr. Altaf Ali was felicitated by our beloved principal Rev. Bro. Vincent Reddy. The feedback of the students was taken and the day was called off.



Our Principal, Rev. Bro. Vincent Reddy felicitating the guest speaker Mr. Altaf Ali with memento



Students listening to lecture delivered by Dr. Altaf Ali