As part of the decennial celebrations of Life Science faculty of Aurora’s Degree College a short lecture programme was organized under the auspices of Indian Academy of Sciences at Dr. Rami Reddy Centre for Distance Education Auditorium, Osmania University campus on 27th and 28th November 2003.

A galaxy of eminent biologists of the country delivered distinguished lectures on all aspects of modern biology. An audience of 300 consisting of faculty, Research Scholars and students from research centers, universities and colleges from the twin cities participated in the programme.

On 27th November Dr. D. Balasubramanyam, Ex-Director, CCMB and presently director of Research L.V. Prasad Eye Institute delivered a thought provoking and highly technical talk on decoding of human genome. He narrated all the dramatic events that led to the development and publication of rough draft of human genome on 26th June 2000 and current status of genome sequencing while talking about other genomic projects like that of E.Coli, the intestinal bacteria, Drosopila, the fly, caenorabidits, a worm and rat, a rodent to name a few. He elucidated the road map of these genomes and threw light on the commonality of the genes and elucidated that these organisms could be used as model systems for studying human genes and genetic disorders.

The next lecture was by the distinguished professor of genetics at Indian Institute of Science Bangalore Dr. S. Mahadevan. He traced the major developments that finally led to the understanding of genetic regulatory mechanisms of protein synthesis in bacteria and narrated the major developments in the operon model proposed and elucidated by Dr. Francois Jacob and Dr. Jacques Monod molecular geneticists at Pasteur institute, Paris.

The third lecture was by eminent molecular biologist Professor Dipankar Chatterjee of Indian Institute of Science Bangalore. This pioneer and distinguished researcher in gene expression studies elaborated in lucid and highly knowledgeable lecture about the first step in gene expression studies i.e transcription. It was a highly motivating and thought provoking lecture.

The last lecture of the day was by the distinguished scientist from CCMB. Dr. Ch. Mohan Rao who discussed the most important and burning problem of Protein folding. He elaborated current problems and achievements in protein folding which is still not thoroughly understood in this era of proteomics.
28th November the first lecture was on a very important topic of interest in our national economy i.e. silk worm as a model genetics system by Dr. J. Nagaraju Staff Scientist at CDFD an authority on Silk Worm genetics and breeding. He elaborated the whole scenario of silk worm genetics and breedings and how it can be harnessed for the upliftment of poor farmers in India.

The second Lecture was by Dr. Utpal Bhadra, Principal Scientist at CCMB who talked about science of gene silencing in plant biotechnology that came with a robust hope in modern biology now. The power and magic of gene silencing is so enormous and obvious that makes general people to scientific community in a spell bound scenario. This power of technology of gene silencing by interference RNA technology could be successfully used to identity viral resistance, drug development as well as cancer therapy.

Dr. T.P. Radha Krishnan, Professor, School of Chemistry, University of Hyderabad in his highly technical talk on renaissance of the plastic age talked about new generation of polymers which are becoming very important in unconventional applications such as electronics and photonics.

Dr. J. Gowri Shankar, the eminent bacterial geneticist of the country delivered a stimulating and thought provoking topic. The love triangle between SS RNA and DS DNA: R-loops and their consequences in bacteria which is actually a research project done at CDFD bacterial genetics laboratory which has been acclaimed by the bacterial geneticists all over the world.
PROGRAMME SCHEDULE

27-11-2003

DECODING HUMAN GENOME
Dr. D. Bala Subramanyam
Director, L V Prasad Eye Institute, Hyderabad
10.00 a.m. - 11.30 a.m.

FROM DOUBLE HELIX TO GENE REGULATION : THE OPERON MODEL REVISITED
Dr. S. Mahadevan
Professor, Dept. of Molecular Reproduction, Development & Genetics,
Indian Institute of Sciences, Bangalore
11.45 a.m. - 1.15 p.m.

INTRODUCTION TO MODERN BIOLOGY : THE PROBLEM OF PROTEIN FOLDING
Dr. Ch. Mohan Rao
Dy. Director, CCMB, Hyderabad
2.00 p.m. - 3.30 p.m.

BACTERIAL TRANSCRIPTION
Dr. Dipankar Chatterjee
Professor, Molecular BioPhysics Unit,
Indian Institute of Sciences, Bangalore
3.45 p.m. - 5.15 p.m.

28-11-2003

SILK WORM (BOMBYX MORI): A LEPIDOPTERAN MODEL GENETIC SYSTEM
Dr. J. Nagaraju
Staff Scientist, Head-Molecular Genetics Lab,
CIBMR, Hyderabad
10.00 a.m. - 11.30 a.m.

GENE SILENCING AND RNA INTERFERENCE - SCOPE AND HOPE IN MODERN BIOLOGY
Dr. Utpal Bhadra
Senior Scientist, CCMB, Hyderabad
11.45 a.m. - 1.15 p.m.

RENAISSANCE OF THE PLASTIC AGE - POLYMERS FOR ELECTRONICS AND PHOTONICS
Dr. T.P. Radhakrishnan
Professor, School of Chemistry, University of Hyderabad
2.00 p.m. - 3.30 p.m.

THE LOVE TRAINGLE BETWEEN SS RNA & DS DNA : R-LOOPS AND THEIR CONSEQUENCES IN BACTERIA
Dr. J. Gouri Shankar
Staff Scientist, Centre for DNA Fingerprinting & Diagnostics, Hyderabad
3.45 p.m. - 5.15 p.m.