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Hyderabad varsity hosts drug discovery meet

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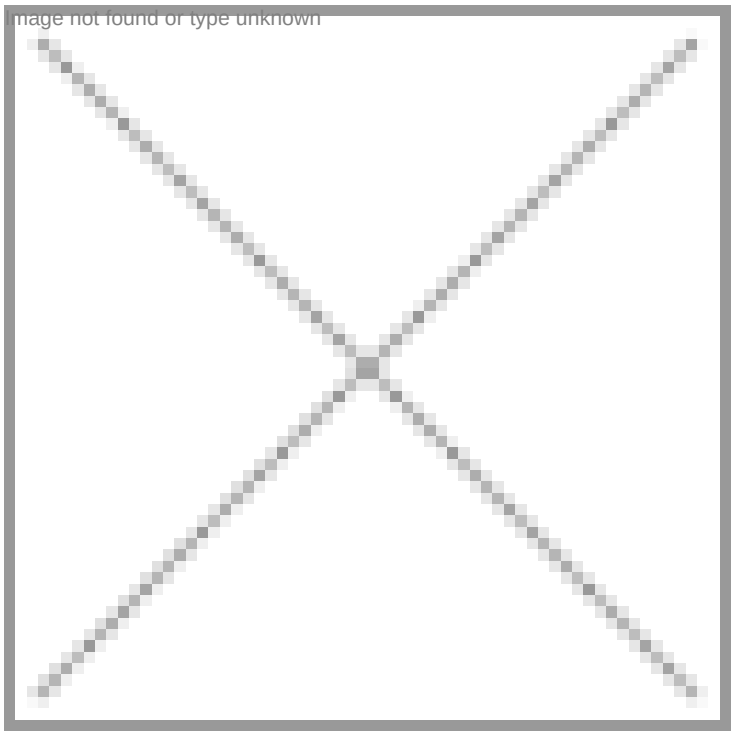

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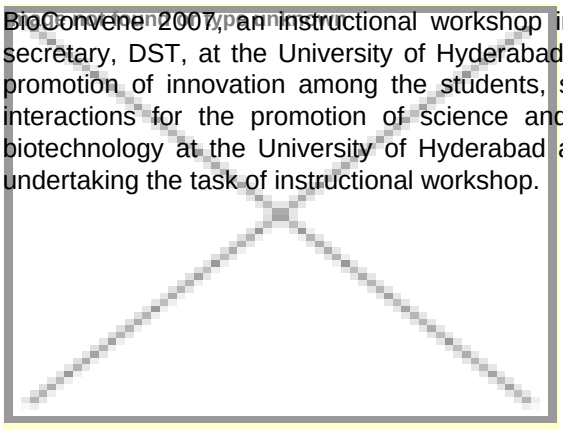
BioConvene 2007, an instructional workshop in bioinformatics and drug discovery was inaugurated by Dr T Ramasami, secretary, DST, at the University of Hyderabad. In his inaugural speech Dr T Ramasami spoke about the importance and promotion of innovation among the students, starting from school level. He also stressed on the need for cross border interactions for the promotion of science and technology leading to drug discovery. He congratulated the center for biotechnology at the University of Hyderabad and CR Rao Institute of mathematics, statistics and computer sciences for undertaking the task of instructional workshop.



D Purandeswari, union minister of state for HRD, Government of India, inaugurating BioConvene 2007 in Hyderabad.

Prof. K Anandkumar, organizing secretary of the workshop, explained that the objective of instructional workshop was to impart training in application of statistical methods, mathematical algorithm and biocomputing in bioinformatics. The areas of training included sequence analysis, pharmacogenomics, immunoinformatics, structure prediction, molecular modeling, docking and drug design. The participants were trained on the softwares like CLLTOX, V-life, MOE, GROMACS and Guassian with the involvement of company representatives and experts drawn from various countries. This training helped them to familiarize in analysis of genome, proteome, metabolic pathways and three dimensional structure predication and drug design. More than 80 members from universities, institutes and industries participated in the four-day workshop, which was held from December 16-19, 2007. It was organized by the Centre for Biotechnology, School of Life Sciences, University of Hyderabad under the convenership of Prof. P Reddanna, co-ordinator, Centre For Biotechnology and CR Rao Advanced Institute for Mathematics, Statistics and Computer Sciences and Penn State University, USA in collaboration with Kasyap Technologies, and Centre for DNA fingerprinting and Diagnostics.

An international conference on bioinformatics and drug discovery was also conducted on December 19-22, 2007. It was inaugurated by D Purandeswari, union minister of state for HRD, Government of India, at the DST auditorium, University of Hyderabad. The inaugural session was presided by Dr Seyed E Hasnain, vice-chancellor, University of Hyderabad. Dr CR Rao, Emeritus Professor and Dr C Channa Reddy from Penn State University were the guests of honor.

Speaking on the occasion, Purandeswari emphasized that in the era of globalization, the country's economy and developments are linked to the developments that are taking place in the world. She expressed the need for greater collaboration between international community and Indian scientists to promote bioinformatics as a useful tool in solving the problems in both agriculture and human health. Prof. Reddanna, co-ordinator, Centre for Biotechnology and convener of the conference explained that drug discovery is a multistage process, involving many scientific disciplines, including biology, chemistry and bioinformatics. He pointed that the conference is multidisciplinary involving fields like mathematics, statistics, computers, chemistry and biology.

About 300 participants and 50 eminent speakers from India and abroad participated in this conference. As many as 100 poster presentations covering various areas of bioinformatics and drug discovery were displayed and discussed. The highlight of the conference was the talk on the use of CADD methods for discovery of clinical candidates for Type II diabetes given by Dr M Rami Reddy of Metabasis Therapeutics, USA. He explained the intelligent use of quantum mechanics, molecular mechanics and free energy perturbation methods in identifying novel lead molecules, talking Type II diabetes as a case study.

A special feature of the conference was the importance of statistical methods in clinical research and clinical trials. The various methods that are required to be employed in clinical research and clinical trials were discussed. Further integration of bioinformatic tools in clinical research and design of clinical trials was emphasized. Discussions included biomarker selection using a systems biology approach, designing proof-of-concept studies, experimental design in early clinical development and bioinformatics tools studying gene-environment interaction, a sequential design for phase I trials, a statistician's perspective for planning clinical trials in India, were discussed.

On the concluding day of the conference, an international symposium on forensic technology was also organized, which covered various aspects in advanced technology of human DNA forensics; microbial forensics, emerging forensic technologies and DNA profiling. Prof. K Anand Kumar announced total cash prizes worth of Rs 30,000 for six best posters, which included the CR and Bhargavi Rao prize, two Schrodinger prizes and three given by the organizers.