Training program in

Specialized Aspects of Biotechnology

Genomics and Proteomics

MODULE III (SECOND EDITION)

Basics, Tools and Applications of Bioinformatics (Along with hands on tutorials)

21, 22 & 23 September, 2007

Jointly Organized by:

Food Engineering & Technology Department Institute of Chemical Technology, Mumbai (In assistance with Information Processing Center, ICT)

&

InfoAlive Solutions & Services, Mumbai

Venue:

Institute of Chemical Technology (Formerly UDCT)
University of Mumbai
Nathalal Parikh Marg, Matunga
Mumbai 400019



Objectives:

The field of Bioinformatics is rapidly expanding and is increasingly making an impact on today's world. Therefore it has become necessary for a spectrum of professionals and academicians to get a working knowledge of this field.

The course is designed for people with scientific background to understand or refresh the basics, gain clarity in the interrelated concepts leading to applications in the field of Bioinformatics. In addition, the course endeavors to *create a foundation for an ongoing learning of this rapidly advancing field*.

After undergoing this course, the delegates will be able to develop an understanding of, its broad implications to different segments and apply the knowledge gained to their respective professions including but not limited to industrial and academic research, product development, marketing and product analysis.

The advanced course constitutes a series of four modules which include: genomics, proteomics, bioinformatics, practical genetic engineering and wet lab hand-on training. The longer duration advanced course is meant to give an in-depth understanding of this field. The first three modules of an advanced course were on genomics, proteomics and bioinformatics were a great success.

Who can benefit from this course:

The course will be useful for people involved in or contemplating participation in genomics, proteomics and bioinformatics related fields in the following capacities:

- Managerial and supervisory level staff from industry, and research organizations.
- > Technical staff from research, analytical and production functions.
- ➤ Postgraduate/undergraduate teachers from colleges and institutions.
- > Supervisory, analytical and technical staff from Hospitals / laboratories.
- > Students (doctorate and masters, and bachelors) from reputed institutions

Prerequisite: Doctorate or Masters in science field;

Bachelors would also be considered on the basis of experience and /or strong recommendation from organizational/institutional authority.

Faculty:

Internationally trained and experienced at senior positions in world-renowned research and academic institutions and corporate-world.

Course Description:

This course seeks to impart basic concepts, tools and applications of bioinformatics relevant to field of genomics and proteomics along with hands on tutorials. The new topics in the forthcoming workshop on Bioinformatics include: **gene prediction and analysis, prediction and role of secondary structures in nucleic acids, in-silico drug screening strategies, and bioinformatics approaches and tools for vaccine design and in comparative genomics.**

The lectures shall be followed by newly designed tutorials for practical training.

Bio-Informatics: Basics, Tools and Applications

- ➤ Introduction to basic genomics and proteomics
- > Overview of Bioinformatics field
- ➤ Various Sequence alignments, alignment analysis,
- ➤ Phylogenetic analysis, Phylogenomics
- > Gene annotation
- ➤ Protein structure analysis
- ➤ Molecular modeling
- Drug discovery (in-silico drug design)
- > Protein Engineering
- ➤ Comparative genomics

Write up on the topics covered including major references for further study will be provided

Duration: 3 days (with hands-on-tutorials)

Course Fees:

Corporate participants: Rs.10, 000 /- delegate Academic participants: Rs. 6,000 /- delegate

Technical persons from hospitals

and government research institutions:
Rs. 6,000 /- delegate
Student:
Rs. 3,000 /- delegate

- > Course fees will include **hands-on-tutorials**, **course material**, lunch, tea/coffee, and snacks.
- The number of participants will be limited in order to maintain the effectiveness of the training program.
- ➤ In case of excess applicants, the selection of the delegates will be at the sole discretion of the organizers. The excess applicants will be considered for the next edition of the course.
- ➤ The registration fees for those who cannot be accommodated will be refunded.

Venue

Food Engineering and Technology Department, Institute of Chemical Technology (ICT, formerly UDCT), University of Mumbai, Nathalal Parikh Marg, Matunga, Mumbai 400019

Advisory Committee

- **Dr. Arizumi K.**, Professor, University of Texas Southwestern Medical Centre (UTSWMC), Dallas, TX., USA.
- **Dr. Apte S.K.,** Associate Director, Biomedical Group, BARC, Mumbai.
- **Dr. Bhatia, C.R.,** Former Secretary, Department of Biotechnology, Govt. of India & Former Director, Biomedical Group, BARC, Mumbai.
- Dr. Firuza R. Parikh, Director, Jaslok Hospital & Research Centre, Mumbai.
- **Prof. Joshi J.B.,** Director, Institute of Chemical Technology (Formerly UDCT), University of Mumbai, Mumbai.
- **Dr. Kulkarni P.R.,** Former Professor of Food Technology & Former Head, Food Engineering & Technology Division, Institute of Chemical Technology (Formerly UDCT), University of Mumbai, Mumbai.
- **Dr. Mahajan S.K.,** Chair , Gharda Chemicals, Institute of Science, Mumbai & Former Head, Molecular Biology & Agriculture, BARC, Mumbai.
- **Dr. Pradhan D.S.,** Former Associate Director, Biomedical Group & Former Head, Biochemistry Division, BARC, Mumbai.

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Registration Form

I / We wish to register for the Training Program in specialized Aspects of Biotechnology

Module-III (Photocopies of the form will be accepted)

1.	Name			
		(Surname)	(First Name)	(Middle Name)
	Organizatio	on	Designation	
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	Area of Pro	fessional Expertise		
2.	Name			
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	Basic Quali	fication and Subject	t	
	Area of Pro	fessional Expertise		
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