

**Training in
'User-End Bioinformatics' for life
science professionals and students
(20th May – 19th June, 2009)**

Background:

The knowledge and skills required for the use of the bioinformatics tools and databases form part of the biotech-bioinformatics interface¹, which is fundamental in the current context of life science research and industrial activities. Hence, learning this user-end bioinformatics is essential for students, young researchers and teachers. This is particularly so because the bioinformatics resources are increasing in number and diversity. Even the fundamental aspects of research methodology have numerous options today. For example, one has to now choose from several gene expression databases, primer designing programs, multiple sequence alignment tools, resources for protein-protein interaction identifications and 20+ literature search engines²! The rapid changes often prevent students, teachers and researchers from keeping the pace with recent trends.

The course:

IBAB, in association with 'Shodhaka'³ brings a program specially created to train students and young professionals in the proper use of several fundamental bioinformatics tools and databases. The one month training module would involve brief theory and demonstrations, followed by hands-on sessions in different areas that are essential for biologists today, including analysis of sequences, primer designing and identifying gene expression patterns as well as molecular interactions ([click here for syllabus](#)). The link between the research problems/questions to the choice among the options will also be addressed in the module.

Participants: This course is intended for students or any (graduate or post graduate) professional with life science background. Limited seats!

Venue: The course will be conducted in the new campus of IBAB (Biotech Park, Electronic city).

Dates: The course begins at 10 am on 20th May 2009 and ends on 19th June 2009. Selected candidates should report by 9.30 am at the venue on 20th May. Daily timings will be from 9.30 am till 5.30 pm. The course activities will be on all working days. There will be no activities on all Sundays and two of the Saturdays.

Course Fees (does not include travel, accommodation and food charges; these charges will have to borne separately by the participants):

Academic professionals (researchers /teachers)	Rs.10000/-	Industrial professionals	Rs.15,000/-	Students	Rs.7,500/-
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To apply: Send a DD or cheque to: Shodhaka Life Sciences Private Limited, along with your CV latest by 12th May 2009 to the address mentioned below (which is NOT the same as the venue of the actual program).

Shodhaka, C/o IBAB, G-05, TechPark Mall, ITPB, Whitefield Rd., Bengalooru – 560 066 Karnataka State

Students and academic professionals will have to provide two references in the CV and carry their official identity cards when visiting IBAB for the program. Special discounts may be available for selected candidates.

1. Acharya KK, *The Biotech-Bioinfo Interface in the Context of Education and Growth of the Biotechnology Industry in India Today* 2006 <http://www.ibab.ac.in/PDF/Biovistas%20manuscript%20final.pdf>
2. Acharya KK, Hariitha H & Greta K, *How do you choose your literature search tool(s)? Nature precedings* 2008, <http://precedings.nature.com/documents/2101/version/2>

3. *Shodhaka Life Sciences Private Limited* is a young company being incubated at IBAB (IBAB promotes entrepreneurship in different ways).

Course Coordinator: Dr. Kshitish Acharya

Contact: shodhaka@ibab.ac.in

Also announcing:

1. Demystify biotechnology & bioinformatics: 31st May 2009

Spend 8 hours and get the big picture of modern biology (*biotechnology, bioinformatics and related subjects*)! This program is specially designed for professionals who have NOT studied biology/biotechnology, but involved in related activities (e.g., professionals in the area of marketing bio-products). [CLICK FOR DETAILS!](#)

2. Career planning workshop: 6th and 7th June 2009

Two days of your time can make a difference to your future! This is a specially designed workshop in career planning for all science students/freshers, particularly oriented to biotechnology and bioinformatics. [CLICK FOR DETAILS!](#)

Syllabus

One month modular training course in user-end bioinformatics [May 20 – June 19, 2009]

1. Methods to obtain [different ids, evidences, sequences, domains etc](#) for genes, transcripts and proteins
2. Primer designing basics and special cases (e.g., cloning, genetic engineering, alternative splice detection etc).
3. Sequence analysis methods
4. Retrieving specific information using
 - a. advanced literature search options and
 - b. molecular interaction databases/tools.
5. Gene expression databases and information analysis ([major focus area](#)).

The stress will be on

- a) comparative account of various software and databases from a user's perspective
- b) practicing the best use of the bioinformatics resources
- c) linking the scientific questions to the final interpretation of the results obtained using the resources