Regional Student Group – India

"... Your local window to global opportunities."

Affiliated to the Student Council of International Society for Computational Biology (ISCB)

CONNECT

Dec 2010, Vol. 4

"Great things are not done by impulse, but by a series of small things brought together."~Louis Vincent

Contents

- Note to Readers.
- RSG-India's Outreach – Showcasing our efforts at HiPC, Goa 2010.
- Top-10 posts on the Message Board.
- Topic of the Month (TOTM) – Role of Computational Tools in NGS.
- 'BIO-Innovation' - UGENE.

Note to Readers...

This winter, RSG-India gladly brings out to you the fourth edition of CONNECT. Being the last one for 2010, we first give you a foretaste of our participation at a two-day conference, 'HiPC, Goa' organized this year. Further, we also focus on our regular sections, 'Top 10 posts on the Message Board' and 'Topic of the Month (TOTM)' - Role of Computational Tools in Next Generation Sequencing. With the blooming turnout of our section 'BIO-Innovation' we also illustrate an integrated Bioinformatics tool 'UGENE'.

We hope you find this edition much more beneficial and our efforts are guiding and motivating you to the right conduit of your academic endeavors'!

RSG-India's Outreach – Spanning our wings...

In this edition of 'CONNECT', we throw light on the active participation of RSG-India at HiPC, Goa in December 2010. We would like to showcase our interaction with people from the industry and academia in this volume.

- ✓ We were given a booth of our own at the conference to spread the word about our initiatives and activities.
- ✓ RSG-India also featured in the participant handbook and several other publicity material of HiPC.
- ✓ RSG-India also shared the exhibition space with major companies such as Wipro, CRL, Platform computing which are actively involved in providing infrastructure support to Computational Biologists for carrying out high performance computing.

RSG-India at HiPC

... will be continued ...

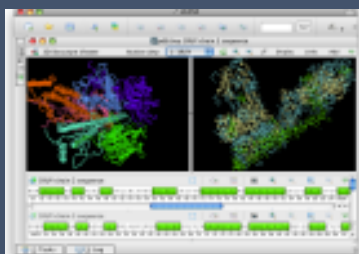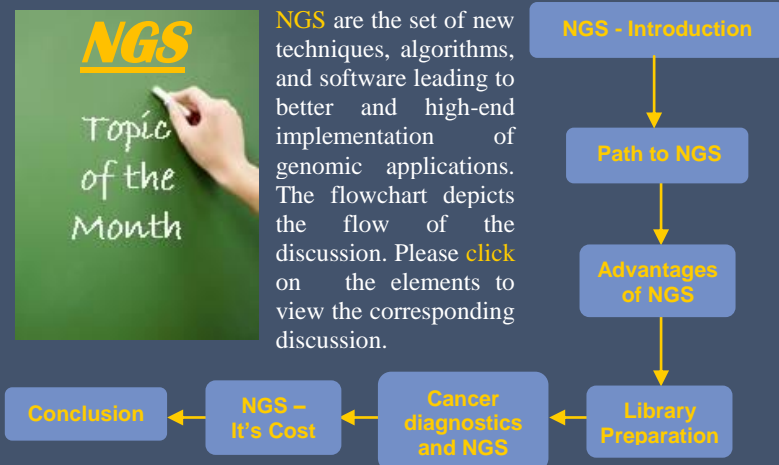## TOP in Focus 10 POSTS ON THE MESSAGE BOARD

1. ARTICLE – Mastering Your Ph.D. Defending Your Thesis With Flair
2. Research Fellowship - CCMB Summer Training Program for the year 2011
3. Scholarship - Sir Doradji Tata Trust – Young Researcher Award – 2011
4. EVENT - Bioinformatics National Certification 2011 (BINC 2011) Examination
5. Research Position - Career Opportunities @ JNU
6. OPENING - POST-Doctoral fellowship in systems biology and bioinformatics
7. QUERY - perl script for cartesian to internal coordinates
8. ADMISSION - Admission to Ph. D. Program @ IIT Hyderabad
9. CONFERENCE - OMICS Hyderabad-International Conference and Exhibition on Proteomics & Bioinformatics 2011
10. MISC - 1000 Genomes Project Tutorial Videos

Role of Computational biology in Next Generation Sequencing

NGS Topic of the Month

NGS are the set of new techniques, algorithms, and software leading to better and high-end implementation of genomic applications. The flowchart depicts the flow of the discussion. Please click on the elements to view the corresponding discussion.

- NGS - Introduction
- Path to NGS
- Advantages of NGS
- Library Preparation
- Cancer diagnostics and NGS
- NGS – It's Cost
- Conclusion

'BIO – Innovation' - UGENE

UGENE is free, open-source bioinformatics software. It has a friendly user interface and runs on Linux, Windows, MacOS and Solaris. It also contains a library of highly optimized algorithms, and has very moderate hardware requirements to run. The primary features include MSA using KAlign, PCR Primer design, ORF Finder, Protein back translation, etc.

For queries and suggestions, Email us at: rsg-india@iscbsc.org
RSG-India Website: http://www.iscbsc.org/rsg/rsg-india
Google Group Message Board: http://groups.google.co.in/group/rsg-india