

### Program Directors:

- **Malali Gowda**, Professor, Center for Functional Genomics & Bioinformatics, TDU
- **Pruthvi Chakravarthi T**, CEO, Bengaluru Genomics Centre(BGC)

### Theme:

Rapid advancement of Next Generation Sequencing (NGS) Technologies has revolutionized the biological sciences. It has proven the better understanding of Genetics, functional genomics (genome, transcriptome, metagenome, etc..) of an organisms. The emergence of NGS platforms imposes increasing demands on statistical methods and bioinformatics tools for the analysis and the management of the huge amounts of data generated by these technologies. This training is jointly organizing by TDU and BGC; it provides lectures, practical hands on session of NGS sequencing and sequence data analyses using bioinformatics tools.

### Objectives:

1. To train and capitalize the human resources for carrying out Next Generation Sequencing and Big- Data Analyses.
2. To pave the way into huge data-sets and tackle it through the bioinformatics skills.

### Previous events:

Website Link: <http://tdu.edu.in/genomics/genomics-events/>

### Who Can Participate?

Students, faculty and scientists from an academic and industry including Life Sciences, Computer Science, Medicine, Agricultural Science, Environmental Science etc., are encouraged to participate in this event.

### Recommended for:

This certificate course is Transdisciplinary in nature. TDU strongly recommends this module for UG/PG students and Research scholars.

### Computer Support:

We will be providing computers and server with required programs and software's for the participants.

### Registration Fee (INR)

Students (BSc)	: 9,000
MSc/MBBS	: 10,000
PhD Scholars	: 12,000
Postdoc	: 14,000
Faculty	: 16,000
Industry	: 20,000
International	: 700USD

### Organizing Secretary:

Ashalatha K L, TDU  
Santhosh Hegde, BGC

### Venue:

The University of Trans-Disciplinary Health Sciences and Technology (TDU), Bengaluru – 64

Day	Contents
Day-1	<ul style="list-style-type: none"> <li>• Introduction to Next Generation Sequencing (NGS) technologies</li> <li>• Guidelines for sample collection, storage and shipping</li> <li>• DNA extraction and visualization</li> </ul>
Day-2	<ul style="list-style-type: none"> <li>• PCR amplification for NGS, visualization and assessment of PCR amplicons.</li> <li>• NGS library preparation and sequencing</li> </ul>
Day-3	<ul style="list-style-type: none"> <li>• Basic of LINUX Command Line</li> <li>• Introduction to NGS Data File Formats</li> <li>• Metagenome sequence analysis - Reference mapping, Phylogenetic analysis and Population diversity analysis</li> </ul>
Day-4	<ul style="list-style-type: none"> <li>• Whole genome sequence (WGS) analysis – Assembly and Annotation</li> <li>• Transcriptome sequence (RNASeq) analysis – Assembly and Annotation</li> </ul>
Day-5	<ul style="list-style-type: none"> <li>• Transcriptome Quantification and Differential Gene Expression (DGE) analysis</li> <li>• Visit to NGS and Bioinformatics facility</li> </ul>
Day-6	<ul style="list-style-type: none"> <li>• Sequence Read Archive (SRA) submission to NCBI</li> <li>• Genome Browser and Databases</li> <li>• Talk on Intellectual Property Rights (IPR) and manuscript writing</li> </ul>

### Registration Link:

<http://tdu.edu.in/genomics/genomics-events/>

**Last date for Registration – 10 September, 2018 (limited seats),  
No refund for cancellation of registration.**

### Payment Mode NEFT (Online):

Account Name: ITD-HST General Fund Account Number:  
0694104000134705

IDBI Bank, Yelahanka New Town, Bangalore-560064, IFSC:  
IBKL0000694, MICR: 560259014

**The Demand Draft in favor of "ITD-HST" and payable at  
Bengaluru**

### Postal Address:

The University of Trans-Disciplinary Health Sciences and  
Technology (TDU),  
#74/2, Jarakabande Kaval, Post Attur via Yelahanka, Bengaluru,  
Karnataka, 560064

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**Accommodation will be arranged based on request latest by 10  
September, 2018 with additional charges**