



# Training on Next Generation Genomic Technologies (Next Generation Sequencing and Bioinformatics)

Jointly organizing by Center for Functional Genomics & Bioinformatics, TDU  
and Bengaluru Genomics Centre (BGC)

**June 25 - 30, 2018**



Bengaluru Genomics Center  
Heredity Decoder

## Program Directors

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

## Training Theme

Recent advancements in DNA sequencing have made enormous contributions to understanding the biology of life forms. Reduced cost and increased speed of DNA sequencing have led to rapid growth of genomics. Functional significance of genomic elements (DNA, RNA, proteins, small molecules and phenotype) are still being unravelled in each organism. This workshop will provide an introduction to Next Generation Sequencing (NGS) technology, platforms, data generation, and data analysis.

## Objectives

Training and capitalizing human resources to carry out NGS. Carryout high throughput research using genomic tools to foster transdisciplinary dialogues in functional genomics

## Past Events

- Training on Transcriptome Sequencing and Analysis (April, 2018)
- Training on Whole Genome Sequencing and Analysis (March 2018)
- Refresher Course on Multi-omic Applications in Medicinal Plant Research (February - March, 2018)
- Training on Next Generation Genomic Technologies (January 2018)
- National Symposium on Future of Functional Genomics (October 2017)
- **Website Link:** <http://tdu.edu.in/genomics/genomics-events/>

## Who can Participate

Students, faculty and scientists from academia and industry. In addition to Life Sciences, Computer Science, Medicine, Agriculture/Environment Science etc. are encouraged to participate in this event.

## Recommended

This Certificate Course is Transdisciplinary in nature, students and Research Scholars. TDU strongly recommends this module for UG/PG.

## Computer Support

We will provide computers with software installed and high-end server facility for the participants

## Program Coordinators

- Mr. Chowdry Vinay Kumar, BGC
- Dr. Mohan Kumar, TDU

| Day   | TOPICS  |
|-------|---|
| Day 1 | Introduction to 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> Generation Sequencing Technologies<br><b>Hands on Session :</b> Sample collection, Storage and transportation, Nucleic acids extraction and visualization         |
| Day 2 | <b>Hands on Session :</b> PCR Amplification for NGS, Visualization and assessment of PCR amplicons, NGS library preparation and sequencing,<br><b>Hands on Session on Bioinformatics :</b> LINUX Command Line and NGS Data File Formats |
| Day 3 | <b>Hands on Session on Bioinformatics:</b> Whole genome sequencing (Assembly and Annotation)  |
| Day 4 | <b>Hands on Session on Bioinformatics:</b> Transcriptome sequencing (Assembly and Annotation)   |
| Day 5 | <b>Hands on Session on Bioinformatics:</b> 16S rRNA Metagenome sequencing (Reference mapping and Phylogenetic analysis, Population diversity analysis )   |
| Day 6 | <b>Hands on Session on Bioinformatics :</b> SRA Submission, Genome browser and Database   |

## Registration Fee

|                            |              |
|----------------------------|--------------|
| Students                   | : 9,500 INR  |
| PhD Scholars               | : 12,000 INR |
| Postdoc                    | : 14,000 INR |
| Faculty                    | : 16,000 INR |
| Industry                   | : 20,000 INR |
| International Participants | : 700USD     |

## Registration Link

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

**Last date for registration is 10<sup>th</sup> June 2018 (limited seats).**

## Payments 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** should be 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

Accommodation will be arranged based on request latest by **15<sup>th</sup> June, 2018** with additional charges

**Venue: The University of Trans-disciplinary Health Sciences and Technology (TDU), Bengaluru - 64**

**Contact** Email: [genomics@tdu.edu.in](mailto:genomics@tdu.edu.in)  
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**Degree Programs at TDU (Admissions Open 2018-2019) \*Limited Seats Only**

**Last Date for Enquiry : June 15<sup>th</sup>, Admission Ends : July 15<sup>th</sup>, Classes Commence : August 2018**

1. M.Sc. Biological Sciences (Bioinformatics and Functional Genomics)
2. M.Sc. Life Science (Conservation Future)
3. B.Sc. Life Science (Conservation Science)

**(For more information visit [www.tdu.edu.in](http://www.tdu.edu.in) or contact at [admissions@tdu.edu.in](mailto:admissions@tdu.edu.in))**