

10th Training Program “Hands-on Training on Next Generation Sequencing, Analysis & its Applications”



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

February 11 - 16, 2019

Program Directors:

- **Dr. Malali Gowda**, Professor & Head, Centre for Functional Genomics and Bio-informatics, TDU
- **Dr. Pruthvi Chakravarthi T**, CEO, Bengaluru Genomics Centre (BGC)

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Preamble:

The progress of science is punctuated by the advent of revolutionary technologies that provide new ways and scales to formulate scientific questions and advance knowledge. Next-generation sequencing (NGS) technology, with its high-throughput capacity and low cost, has developed rapidly in recent years and become an important genome-wide tool to discover new **genes, genomes and its elements**. Over half of genome content is composed of **jumping genes** or **Mobile genetic elements** or **transposable elements**, which repetitive in nature and pose greater challenges for eukaryotic genome annotation. The expression of genome called “**Transcriptome** or RNA world” is complex and composed of varied transcripts per gene. Computational tools are evolving with speed and accuracy to address problems of genomes and transcriptomes. **Hand-holding** of participants and mentoring by **genome experts** throughout this training will create an ecosystem for experiential learning in real time.

Theme:

- BIG-BANG of GENOMIC Science
- Avenue and Opportunities in Genomics
- Challenges in Bioinformatics & Data Science
- Agglomeration of “Pure & Digital” Sciences

Mission Accomplished (2017-18):

- Created “Genomics Ecosystem” in the country by conducting 10 training programs
- Trained > 200 Scientists (Streams of Biology, Engineering, Technology).
- Achieved 100 % literacy by participants in the areas of Genomics and Bioinformatics.
- More details:
<http://tdu.edu.in/genomics/genomics-events/>

Day	Schedule
11.02.2019 (Monday)	<ul style="list-style-type: none">• Plenary Lecture on Next Generation Sequencing (NGS) technologies and Applications• Hands on: Sample collection, Storage and Processing, DNA isolation and Quality check
12.02.2019 (Tuesday)	<ul style="list-style-type: none">• Hands on: NGS library preparation• DNA Sequencing using NGS platform
13.02.2019 (Wednesday)	<ul style="list-style-type: none">• Hands on: Basic of computing (Linux) and high-end server• <i>De novo</i> based Assembly and Annotation of Genomes
14.02.2019 (Thursday)	<ul style="list-style-type: none">• Hands on: Transcriptome sequence and <i>De novo</i> based Assembly and Annotation

Cont.

Day	Schedule
15.02.2019 (Friday)	<ul style="list-style-type: none"> • Hands on: R-programming applications in NGS data analysis • Hands on: Transposon Annotation from assembled genomes
16.02.2019 (Saturday)	<ul style="list-style-type: none"> • Hands on: NGS data submission to NCBI database • Genome browser and databases • Intellectual Property Rights (IPR) and Manuscript Writing

Who Can Participate?

Students, Faculty and Scientists from Academia and Industries including Life Sciences, Biology, Computer , Medicine, Agriculture, Veterinary, Environmental Science and any other disciplines.

Computer Support:

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

Registration Fee (INR)

Under Graduation Students	9,000
Master Graduation Students	10,000
Research Scholars	12,000
Postdoctoral Researchers	14,000
Faculty	16,000
Industry Personnel	20,000

Registration Link:

<http://tdu.edu.in/events/10th-ngs/>

Last Date for Registration:

25th January 2019 (Limited seats)

No refund for cancellation of registration.

Payment Mode NEFT (Online):

Account Name: UTDHST General Fund

Account Number: 0694104000134705

IDBI Bank, Yelahanka New Town, Bangalore-560064,

IFSC: IBKL0000694, **MICR:** 560259014

The Demand Draft in favour of “**UTDHST**” 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, PIN- 560064

Accommodation:

It will be arranged based on request latest by **25th January 2019** with additional charges

Organizing Secretary

Ms. Puja Sashankar, TDU

Dr. S. Anwar, BGC

CENTER FOR FUNCTIONAL GENOMICS AND BIOINFORMATICS

THE UNIVERSITY OF TRANS-DISCIPLINARY HEALTH SCIENCES AND TECHNOLOGY

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