National Genomics Core

Located At

South-Central Regional Core Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad. ngc@cdfd.org.in | 040 27216208 / 09 /10

Central Core National Institute of Biomedical Genomics, Kalyani, West Bengal

North Central Regional Core University of Allahabad Prayagraj, Uttar Pradesh

Why Us?

WE UNDERSTAND YOUR SCIENCE!

At NGC, experts with Ph.D and international experience are using top notch technologies to carefully plan and answer your specific genomic queries.



Who are we?

National Genomics Core has been established by the Department of Biotechnology, Govt of India to provide high end genomic solutions and as a full-service provider for the research needs of academic institutes and industries.

We aim to provide a robust platform for skill development in genomics and utilization of high-throughput technologies to solve Life Science challenges, thus developing genomics applications to ensure social and health benefits for All.

Our Core Competencies

>> Providing a robust platform for

- Skill development in genomics
- Utilization of high throughput technologies to solve Life science storage challenges
- Computation, statistical analysis, storage and management of big data
- >> Stimulate transformative research
- >> Developing genomics applications for
 - National economic growth
 - Ensuring Social and health benefits

INSTRUMENTS

Illumina Miseg FGx

- First fully validated next-generation sequencing (NGS) solution designed for forensic science
- >> FBI NDIS approved
- Analysing over 200 genetic markers using a single, streamlined workflow

Illumina Nextseg 2000

- First in South-Asia. Illumina's latest cost-effective, high-throughput system for diverse genomics applications
- Reduced sequencing costs and deeper exploration for ground breaking discoveries in basic biology, health, agriculture, oncology, microbiome research, forestry, livestock, marine and many more

Agilent Tapestation 4200

- Fully automated sample processing for DNA and RNA sample quality control
- Results obtained within 1-2 minutes per sample
- Requires as little as 1 to 2 µL of DNA or RNA samples

WE OFFER

Metagenomics

Metagenomic Sequencing

• 16S/18S/ITS Sequencing

Epigenomics

ChIP Sequencing

Methylation Sequencing

Whole Genome Sequencing

- De Novo Genome Sequencing • Whole genome Resequencing
- SARS-CoV-2 Genome Sequencing

Forensic genomics

ATGC

Enrichment based

Whole Exom Sequencing

Targeted Disease Panel

Amplicon Sequencing

SFOUENCING

Genotyping - by - Sequencing

DATA

ANALYSIS

DATA

DELIVERY

Sequencing

LIBRARY

PREPARATION

PI ANNING AND EXPERIMENTAL DESIGN • Forensic genomics using the FDA proved ForenSeq DNA Signature Prep Kit (Verogen Inc. San Diego)

> Transcriptomic Sequencing Whole transcriptome

- sequencing
- mRNA-Sequencing
- Small RNA sequencing
- Direct RNA Sequencing

Genomics Solutions • GRO Sequencing SARS-Cov-2 Genome Sequencing

INSTRUMENTS

Oxford Nanopore GridION X5

- Long read sequencing with enhanced analysis of repetitive regions, structural variation, phasing, metagenomics, and more
- Run multiple DNA/RNA sequencing experiments simultaneously As much as 150 Gb of data streamed in real time for immediate analysis
- Automate sample and library preparation using VolTRAX- enabling reproducible and portable sample preparation

Agilent 2100 Bioanalyser

- >> Highly precise analytical evaluation of DNA and RNA using specific microfluidic chip
- Requires as little as 1 µL of DNA or RNA samples

Ouantus[™] Fluorometer

- » Compact, dual-channel fluorometer for quantifying nucleic acids
- >> Designed to provide highly sensitive fluorescent detection of DNA or RNA

Customized