

# National Five Days Hands-on Workshop



## **NEXT GENERATION SEQUENCING**



23<sup>rd</sup> – 27<sup>th</sup> April, 2024

**Jointly Organised by** 

State Virus Research and Diagnostic Laboratories (VRDL)

**Department of Microbiology** 

All India Institute Of Medical Sciences, Raipur

and

Premas Life Sciences Pvt Ltd., New Delhi

#### About the State VRDL, AIIMS, Raipur

The state-level Virus Research and Diagnostic Laboratory (VRDL), Department of Microbiology, AIIMS, Raipur established by Department of Health Research, Ministry of Health & Family Welfare, Government of India, provides state of the art diagnostic, research and training facility in human viral infectious diseases. VRDL array of work include investigation of all viral disease outbreak in the state of Chhattisgarh, identification of viral strains, unravelling its epidemiological characteristics and genetic analysis for effective control and further prevention.

#### **About the Workshop**

With the advent of Next-Generation sequencing technology, it has now become possible for the scientists and clinicians to look into the whole genome of an infectious microorganisms. NGS being expensive and requires expertise to analyse the data, it is most often outsourced and hence, remains elusive. To give the hands on experience of NGS by explaining in detail both the theoretical and practical aspects, this national five day workshop is proposed by state-level VRDL, Department of Microbiology, AIIMS, Raipur and Premas Life Sciences Pvt. Ltd. The workshop aims to address the key issues in NGS pertaining to Illumina platform instrument and its component detail explanation, acid extraction, target enrichment, library preparation, denaturing library, loading of flow cell and analysis of data using various software tools and algorithms at various stages of data analysis. Organizing this five days national workshop on "Next Generation Sequencing - NGS " is an attempt to provide insight of this methods to all interested students, scientists and faculties.

No of participants in workshop: Twenty Four (24)

#### Workshop may be useful for

Post graduate students and Ph.D. scholars, scientists, researchers, laboratory personnel, Faculty members from any research institute, hospital, universities and laboratories.

#### **How to Apply**

The candidates can apply in the google form (provided below under registration link or QR code) on/before 15<sup>th</sup> April 2024.

#### **Registration Link**



https://docs.google.com/forms/d/1 DkVmtOxWjeS4u88ewQCjNusRTmN KJUxzMa68vgo2lY8

#### **Registration Fees:**

Students/Research Scholars: INR 10000/-

Faculty/Scientist: INR 18000/-

Last date for registration is April 15th, 2024

#### **Payment Details:**

Account No: 936320110000295

IFSC Code: BKID0009363

**Account Name: Molecular Diagnostic Workshop** 

Branch: Bank of India, Tatibandh, Raipur,



#### **Accommodation:**

The participants may make their own accommodation arrangements. However, on prior request, accommodation may be arranged in nearest hotels on a paid basis only. Lunch and refreshments on the workshop days will be provided by the organizers

#### For Further Details contact:

Email: statevrdl@aiimsraipur.edu.in

Dr. Sanjay Singh Negi, Additional Professor 8518881779
Mr. Kuldeep Sharma, Scientist - C 7566661828
Dr. Pushpendra Singh, Scientist - C 9425724709

#### Topics to be covered

- Hand on Library Preparation
- Library QC Check
- Next Generation Sequencing
- Overview of NGS data and its application in medical sciences
- Sequence Analysis & Genome Assembly
- Prediction of Genomic Variants from NGS data

### **Organizing Committee**

**Dr. Anudita Bhargava,** Professor & Head Organizing Chairperson Dept. of Microbiology, AIIMS, Raipur, CG

**Dr. Sanjay Singh Negi,** Additional Professor Organizing Secretary Dept. of Microbiology, AIIMS, Raipur, CG

#### **Workshop Resources**

Mr. Kuldeep Sharma, Scientist – C

**Dr. Pushpendra Singh,** Scientist – C

**Dr. Ruchi Khare,** Scientist – B

#### **Premas Life Sciences Pvt. Ltd.**

Dr. Shivaji Mante
Manager-Field Application Scientist

**Dr. Meghna Singh**Product Manager-Infectious Diseases and Microbiology

#### **Workshop Supporting**

Mr. Jiyan Chandrawanshi

Mr. Md. Rafiqullah Khan

Mrs. Sapna Mishra

Mr. Hanuman Prasad

Ms. Khushbu Khawase

Mr. Kushan Kumar

Mr. Amit Mishra