



**Multidisciplinary Centre for Advanced
Research and Studies (MCARS)
JAMIA MILLIA ISLAMIA**

invites you to attend workshop on

“Next-Generation Sequencing Data Analysis”

by, Premas Life Sciences

Overview of the Workshop

- ◆ Learn about existing and upcoming NGS technology and process of data generation
- ◆ Understand data file format, quality control, assembly, annotation and visualization

Day-1: NGS Technology-Theoretical (Nov 15, 2019)

Venue @ MCARS Seminar hall

- 9:30-10:30 AM: *Insights into Next-Gen Sequencing platforms and It's applications*
- 10:30-11:30 AM: *Sample preparation, Seq. library prep, Sequencing method and Data generation*
- 11:30- 11:45 AM: Tea break**
- 11:45-1:00 PM: *Data overview for beginners: Basic computation skills that are essential for NGS, Quality control (FastQC), Adapter clipping, quality control (Alignment methods, Mapping heuristics)*
- 1:00- 2:30 PM: Lunch Break**
- 3:00- 4:00 PM: *Data overview for beginners: Read mapping (BWA, BWA-MEM, Bowtie2, STAR, segemehl), Mapping output (SAM/BAM format) Reference databases (UCSC genome browser), Genome assembly & annotation*
- 4:00-5:00 PM **“Towards a Genomics led economy and career opportunities” by Praveen Gupta**
- 5:00-5:30 PM: *Interactive session with Q & A*

Day-2: Hands on experience in NGS data generation (Nov 16, 2019)

Venue@ Premas Life Science Facility

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