

Hands-On Workshop on basis of Crispr/Cas gene editing Construct Design & Screening Assays

Workshop#1

April 20th – 24th 2020

National Center for Biological Sciences (NCBS),
Tata Institute of Fundamental Research, GKVK PO, Bellary Road, Bengaluru 560065, INDIA
Workshop partially supported by the NaMoR grant of DBT – Indian Department of BioTechnology

Application Deadline : March 25th 2020

>APPLICATION FORM<

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This workshop will be focused on the latest advances in Crispr/Cas based genome editing with specific application examples of Mouse Genome Editing techniques. The participants will learn to choose and design a genome editing strategy, select and design sgRNAs required for a specific target region of interest and validate CRISPR /Cas induced genomic modifications via Cas9 InVitro Cleavage assays and T7endonuclease surveyor assays.

Hands-On Courses and Lectures:

- Molecular Biology Basics of Crispr /Cas techniques, construct design, validations and applications.
- Crispr/Cas experimental strategy design
- Use of Online Tools to design and select optimal guide RNAs.
- Production of sgRNAs via *inVitro* Transcription
- Test sgRNA targeting efficiencies via Cas9 *InVitro* Cleavage Assays and T7E1 assays
- Off-Targeting test assays
- Demonstrations of Mouse Embryo harvesting and *inVitro* culture.
- Ethics and regulations In the use of Gene Editing...