



DEPARTMENT OF BIOTECHNOLOGY  
Ministry of Science & Technology

# Indo-U.S. GENOME

ENGINEERING / EDITING TECHNOLOGY  
INITIATIVE (GETin) PROGRAM



IUSSTF  
Indo-US Science and Technology Forum

## WORKSHOP ON CRISPR Editing in Mammalian Cells and Embryos (4-9 November, 2019)

### About The Workshop

CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) is an emerging biomedical tool that allows researchers to orchestrate DNA sequence(s) for desired gene(s) function. This workshop on CRISPR/Cas-mediated genome editing techniques is offered for all levels of young researchers, who are interested in learning about CRISPR based tools and genome engineering approaches in mammalian cells and embryos. The workshop will cover basic concepts and practical aspects through lectures and hands-on training sessions. The focus will be on designing and delivery of CRISPR vectors, and analyzing the edited cells and embryos as well as discussions on the ethical and regulatory aspects of genome editing.

## Application Deadline: October 5, 2019

### Eligibility of participants

Applications are invited from PhD students, postdocs and young faculties (Asstt. Professors/Scientists).

### Registration fee

**There is no registration fee for the workshop.**

Boarding and lodging will be arranged in the institute's guest house and will be charged as per ICAR guidelines.

Limited seats are available, maximum of 20 participants.



ORGANISED BY  
Division of Animal Physiology and Reproduction  
ICAR-Central Institute for Research on Buffaloes (CIRB)  
Hisar, Haryana, India



# Programme



**Lectures:** Learn all aspects of CRISPR editing, including regulatory and ethical issues to plan your editing experiments



**Practical exposure :** Learn how to clone the designed guides into CRISPR plasmids, their screening, & delivery in cells/embryos



**Bioinformatics:** Learn how to design best guides to improve specificity of your genome editing experiments using various bioinformatics tools



**Networking:** Apart from classroom and lab, you will have plentiful networking time to interact with all experts as well as other attendees

## Registration Form

Name (In capital letters):	
Gender:	
Date of birth:	
Designation and educational qualification:	
Organization/ Institute/ University:	
Email :	
Phone number (Mobile):	
Current nature of research work:	
Motivation to attend the workshop (Not more than 100 words):	
How the workshop will benefit your future research experiments ? (Not more than 100 words):	

## How to apply

Submit one page resume with filled registration form by email to  
Dr. Naresh L. Selokar (selokarnareshlalaji@gmail.com) or  
Prof. Charles R. Long (clong@cvm.tamu.edu) for consideration.



## Host institute:

Central Institute for Research on Buffaloes, Hisar is an Animal Science Institute, under the umbrella of Indian Council of Agricultural Research, was established on February 1<sup>st</sup>, 1985 to promote and undertake research on all aspects of buffalo production with a vision to develop and propagate high yielding elite buffalo germplasm for quality milk and meat production. Institute has a livestock farm of more than 400 beautiful buffaloes with sprinkling wallowing tank and fields of luscious fodder-crops.

## How to reach the host institute:

Hisar is 180 km situated northwest to Delhi on National Highway Number 9 and is well connected by road and rail. Participants need to make their travel arrangements to reach the host institute. The organizers will not contribute any travel expenses. The campus is 4 km from the city railway station and 2 km from the bus station. Paid auto can be availed at the railway/bus station to reach the institute.

## Weather:

Weather in November is pleasant and comfortable. The expected temperature during the workshop period may vary between the highest at 30°C to the lowest being around 15°C.



## Invited Experts

- Prof. Charles R. Long, Indo-US GETin Visiting Fellow, University of Texas & AM, USA
- Dr. Sivaprakash Ramalingam, Senior Scientist, CSIR-Institute of Genomics and Integrative Biology, New Delhi
- Dr. P. Chandra Shekar, Senior Scientist, CSIR-Centre for Cellular & Molecular Biology, Hyderabad
- Dr. Monika Saini, Human Embryologist, All India Institute of Medical Sciences, New Delhi
- Dr. Rajender K. Motiani, Assistant Professor, Regional Centre for Biotechnology, Faridabad

## CIRB's Pride

You have read about “the Dolly”, the famed cloned sheep, and seen photos of cloned animals. Now, you will have chance to say hello and meet personally two cloned buffaloes, which we have produced here.



**Hisar Gaurav:**  
Clone Bull of  
Murrah Buffalo



**Sach Gaurav:**  
Clone Bull of  
Assamese Buffalo

## Patron

- Dr. S.S. Dahiya, Director, ICAR-CIRB, Hisar

## Organizers

- Dr. Naresh L. Selokar, Scientist, ICAR-CIRB, Hisar
- Dr. Dharmendra Kumar, Senior Scientist, ICAR-CIRB, Hisar
- Dr. Prem Singh Yadav, Principal Scientist, ICAR-CIRB, Hisar
- Prof. Charles R. Long, Indo-US GETin Visiting Fellow

## Contact for information:

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