



National Training Programme
on

Genome Editing Technologies
in Livestock

Sponsored under
(SCSP scheme of ICAR-NPGET Project)

February 04-13, 2026

Organized by
Animal Biotechnology Division
ICAR-National Dairy Research Institute
(Deemed University)
Karnal - 132001 (Haryana) INDIA
www.ndri.res.in



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About Institute (NDRI)

The ICAR-National Dairy Research Institute is a leading research organization dedicated to advancing dairy development in the country through research, education, and extension activities. As a national institute, it focuses on fundamental and applied research to boost animal productivity and to create cost-effective technologies that benefit dairy farmers. Additionally, the institute plays a key role in training skilled professionals to address the human resource needs of the dairy sector. Over the years, it has consistently enhanced its research and human resource development programs to contribute to food security, human resource development, technology dissemination, and the economic upliftment of dairy farmers.

About Animal Biotechnology Division (ABTD)

Animal Biotechnology Division (ABTD) is one of the prestigious divisions of the Institute. Research work in various laboratories at the Animal Biotechnology Division is focused on three main areas namely reproductive biotechnology, animal genomics, proteomics and structural biology. This training is under the reproductive biotechnology area, which has major interest in technologies such as production of genome-edited and cloned animals, embryonic and adult stem cells, and cryopreservation of gametes and embryos. In recent years, genome editing tools, such as CRISPR/Cas9, have revolutionized livestock improvement by tailoring the production and health traits. For instance, knockout of the β -Lactoglobulin (BLG) gene enables the production of hypoallergenic milk, and ablating the myostatin (MSTN) gene boosts muscle mass. In the field of genome editing, NDRI has achieved early success by producing MSTN and BLG gene knockout buffalo calves.

About the Training

Genome editing techniques are used in modern livestock research and development, and veterinary diagnostics. This training course is intended for the faculty and researchers who are seeking basic and advanced-level genome editing training to participate in biotechnological research in livestock sciences. Thus, this training will help to fill a skill gap between college and employment and those seeking new career opportunities in the biotechnology field. This training aims to provide insight into standard gene editing techniques, including production of gene-edited embryos. Participants will acquire and demonstrate laboratory knowledge and skills for the application of genome editing in livestock, as well as experimental design and execution for the production of more productive and healthier animals.

Candidates are limited to 10 to ensure low trainee-instructor ratios and a rich educational experience.

Major Topics

- Basics of genome editing
- In-silico tools for design and screening applications
- Cell culture method
- Transfection methods
- Genome analysis
- Setting of genome editing experiments

Eligibility

Applications are invited from the Scheduled Caste (SC) community researchers, including Ph.D. students and research staff (RAs, SRFs, and YPs) of ICAR/ SAUs/ CAUs/ other Universities/institutes. The applicant needs to have Master's Degree (life sciences/ biotechnology).



How to Apply

Interested candidates can submit the filled application through email to the course director (training.abtc@gmail.com). Mention the subject of email as **"Genome Editing Technologies in Livestock"**. The application needs to be approved by the competent authority of applicant's organization (Dean/ Director/ Vice-chancellor).

Registration Fee: There is no registration fee

Certificate

A certificate will be awarded to participants on the successful completion of the training.

Financial Assistance

The participants will be paid T.A. for to and fro journey by rail/ bus/ public transport by the shortest route as per entitlement restricted to AC-II (on producing documentary evidence), as per ICAR norms.

Boarding and Lodging

Accommodation will be arranged free of cost in the Institute's accommodation facilities on sharing basis. (Please do not bring your family members along with you. It will not be possible to arrange for their accommodation at Karnal during the period).

Chief Patron

Dr. Dheer Singh
Director & Vice-Chancellor
ICAR-NDRI

Patrons

Dr. A.K. Singh
Joint Director (Academic)
ICAR-NDRI

Dr. Rajan Sharma
Joint Director (Research)
ICAR-NDRI

Co-Patron

Dr. J.K. Kaushik
HoD & Principal Scientist
Animal Biotechnology Division
ICAR-NDRI

Course Director

Dr. M.K. Singh
Principal Scientist
Animal Biotechnology Division
ICAR-NDRI

Course Coordinator

Dr. Naresh L. Selokar
Senior Scientist
Animal Biotechnology Division
ICAR-NDRI

Faculty

Dr. J.K. Kaushik, HoD & Principal Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Sachinandan De, National Professor & Principal Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Satish Kumar, Principal Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Rakesh Kumar, Principal Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Anuradha Bhardwaj, Principal Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Sudarshan Kumar, Senior Scientist, Animal Biotechnology Division, ICAR-NDRI.

Dr. Bharati Pandey, Scientist, Animal Biotechnology Division, ICAR-NDRI.



APPLICATION FORM

National Training Programme on "Genome Editing Technologies in Livestock" (Sponsored under ICAR-NPGET Project)

Organized at

Centre of Excellence on Genome Editing
ICAR-National Dairy Research Institute (Deemed University),
Karnal-132001 (Haryana) INDIA

February 04-13, 2026

1. Full Name (in block letters) : _____
2. Designation : _____
3. Employment status : _____
4. Present address : _____
E-mail id, Phone/ mobile : _____
5. Permanent address : _____
6. Date of birth : _____
7. Gender: Male/Female : _____
8. Previous trainings, if any : _____
9. Academic record : _____

Sr. no.	Examination passed	Subject main/subsidiary	Year of passing	University or Institution	Other Information
1.	Bachelor degree				
2.	Master degree				
3.	Doctoral degree				
4.	Other certificates, Diploma, Degree, if any				

Signature of the applicant

Date

Place.....

10. Recommendation by forwarding authority :

Signature

Designation

Address

Date

Note: It is mandatory for applicant to submit a soft copy of SC community certificate issued by state/central government and other supporting documents such as an Aadhaar card, aspirational district documents with the filled application form for consideration. Submit the soft copy (in single pdf) of application to Course Director at the training.abtc@gmail.com before 15th Jan. 2026. The confirmation to selected participants will be sent before 20th Jan. 2026. [0184-2259527]



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