

## HOW TO APPLY

The applicant should submit the application form duly nominated by the Head of the Division/Director/Authorized person of the institute/University on or before **10th January, 2024** at [crispricar@gmail.com](mailto:crispricar@gmail.com) (upto 4 PM).

Selected candidates will be intimated by email on or before **15th January, 2024**.

## WHO CAN PARTICIPATE

A maximum of 25 participants in each batch will be accommodated in the training programme. The 2nd year onward PHD students will be preferred. Basic knowledge of Crispr as well as plant molecular biology is required. Preference will be given to scientist, post-doc and research scholars associated with Genome editing EFC project.

3rd - 7th Feb 2025 –Postdoctoral-fellows and Early Career scientist.

(<https://forms.gle/wMJEeaJzhwYviARp7>)

10th - 14th Feb 2025– PhD Students (2<sup>nd</sup> year onwards) and Research Scholars (With minimum 6 months experience in ).

(<https://forms.gle/RMmeh2VYRTAhiEKx7>)

## TRAVEL AND ACCOMMODATION

Participants have to bear own travel, lodging, and boarding expenses. Local travel arrangements from the place of stay to the training venue are to be made by the participants. The organizer will cover the Working lunch during the training programme.

## Course Director

**Dr. Viswanathan Chinnusamy**

Joint Director (Res),

ICAR-IARI, Pusa Campus, New Delhi-110012

Email: [V.chinnusamy@icar.gov.in](mailto:V.chinnusamy@icar.gov.in)

## Venue

**Inaugration:** G.S. Sirohi Hall, Division of Plant Physiology, ICAR-Indian Agricultural Research Institute, New Delhi-110012.

**Practical:** Discovery center & Division of Plant Physiology, ICAR-Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012.



BILL & MELINDA  
GATES foundation

## Hands-on Training and Workshop on Genome Editing in Plants- Advance tools and techniques

3<sup>rd</sup> - 7<sup>th</sup> Feb 2025  
10<sup>th</sup> - 14<sup>th</sup> Feb 2025



**Funded by**

**Bill and Melinda Gates Foundation**

**Resource Team**

**Innovative Genomics Institute, Berkeley,  
United States**

**Organized by**

**Centre of Excellence on Genome Editing  
Division of Plant Physiology  
ICAR-Indian Agricultural Research  
Institute, New Delhi**

## BACKGROUND OF THE TRAINING

Genome editing, a revolutionary technology in the realm of biological science, empowers researchers to precisely modify natural gene alleles in any organism. In the context of plant science, this technology holds immense potential to breed novel designer crops with improved resource efficiency, stress tolerance, quality, and yield. Recognizing the critical need for capacity building in this domain, the Bill and Melinda Gates Foundation has initiated efforts to empower human resources in genome editing within the Indian Council of Agricultural Research (ICAR). As part of this initiative, experts from the Innovative Genomics Institute will lead this training program to share their expertise and provide hands-on experience.

This comprehensive course is designed to equip participants with a foundational understanding of CRISPR biology and the application of CRISPR-Cas9 technology in plant genome editing. Trainees will also gain practical exposure to the core components of genome editing and an understanding of the legislative framework governing its use in India. This training marks a significant step towards fostering innovation and building a robust knowledge base in genome editing for sustainable agriculture.

This comprehensive course is segregated into two modules to cater to participants with different levels of expertise: Module A: Designed exclusively for Ph.D. scholars, this module focuses on foundational concepts, tools, and techniques of genome editing. Module B: Tailored for early-career scientists, this module delves into advanced concepts, including recent developments such as the application of artificial intelligence (AI) in CRISPR genome editing and upcoming tools and techniques. We expect that after successful completion of this training, the attendees will be well-equipped to harness the potential of genome editing in advancing plant science and agriculture.

## OBJECTIVE OF THE TRAINING

- To develop skilled human resources and promote the application of genome editing for crop improvement.

## About the Organizers

**The Bill and Melinda Gates Foundation** is one of the world's largest philanthropic organizations, dedicated to tackling global challenges in health, education, and economic development. Through strategic investments and collaborations, the foundation aims to reduce inequities and improve the quality of life for underserved populations. Its initiatives in agricultural research focus on enhancing food security and supporting innovative technologies for sustainable crop improvement.

**The Innovative Genomics Institute** is a joint effort between the Bay Area's leading scientific research institutions, UC Berkeley and UC San Francisco, with affiliates at UC Davis, Lawrence Berkeley National Laboratory, Lawrence Livermore National Laboratory, Gladstone Institutes, and other institutions. The IGI's diverse group of leading scientists have powerful interdisciplinary expertise. They conduct world-class research, driven by the real possibility of using genome engineering to treat human diseases, end hunger, and respond to climate change.

**ICAR-Indian Agricultural Research Institute (ICAR-IARI)** is the country's premier institution for agricultural research, education and extension. It has been serving the cause of science and society with distinction through basic research, generation of new technologies and development of human resources. The Division of Plant Physiology, established in 1966, undertakes basic and strategic research with a view to understand the processes leading to solution of problems in crop productivity. The division has pioneered in improving drought and salt tolerance in rice through genome editing of *dst* gene in mega rice variety MTU1010 using CRISPR-Cas9.



Innovative Genomics Institute,  
Berkeley, United States



ICAR-Indian Agricultural Research Institute



Division of Plant Physiology



**ICAR- INDIAN AGRICULTURAL RESEARCH INSTITUTE**  
Division of Plant Physiology  
Project Implementation Unit  
“Enhancing climate resilience and ensuring food security  
With genome editing tools”



**Application form for Early Scientists/Post Doctoral Fellows for Training program on "CRISPR Tools and Techniques for Plant Genome Editing"**

**Applicant must submit the details in the given link**  
<https://forms.gle/wMJEeaJzhwYviARp7>

1. Name of the Candidate:
2. Designation:
3. Discipline / Department:
4. Name of the Institute:
5. Date of joining:
6. Date of Birth:
7. Gender:
8. Category:
9. Mobile no.:
10. E - mail Id:
11. Highest Educational qualification:
12. Title of the PhD thesis:
13. Field of Specialization:
14. Details of Educational Qualifications:

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photo of  
applicant

S No.	Degree/Certificate	Board/University	Subject	Year	Marks %/ OGPA
1	Post Doctoral Degree				
2	Post Graduate Degree				
3	Graduate Degree				



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15. In case of -

Early Scientists-

- A. Title of the Project :
- B. Status in the Project:

Post Doctoral Fellow-

- A. Title of the Project :
- B. Months of Experience in the field of genome editing:
- C. Date of joining and please attached the proof of joining:

16. Brief description, how will this training be useful to you?-

Place:

Signature of the participant

Date:

Recommendation of the forwarding Institution

Date: Signature & seal



**ICAR- INDIAN AGRICULTURAL RESEARCH INSTITUTE**  
Division of Plant Physiology  
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**Application form for Ph.D. Scholars/Research Scholars for Training program on "CRISPR  
Tools and Techniques for Plant Genome Editing"**

**Applicant must submit the details in the given link  
<https://forms.gle/RMmeh2VYRTAhiEKx7>**

1. Name of the Candidate:
2. Designation:
3. Discipline / Department:
4. Name of the Institute:
5. Date of joining ICAR:
6. Date of joining current Institute:
7. Date of Birth:
8. Gender:
9. Category:
10. Mobile no.:
11. E - mail Id:
12. Highest Educational qualification:
13. Details of Educational Qualifications:

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applicant

S No.	Degree/Certificate	Board/University	Subject	Year	Marks %/ OGPA
1	Post Doctoral Degree				
2	Post Graduate Degree				
3	Graduate Degree				



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14. In case of -

PhD Scholars-

- A. Title of the PhD thesis :
- B. Date of Registration in PhD:
- C. Year of PhD:

Research Scholar-

- A. Title of the Project :
- B. Months of Experience in the field of genome editing:
- C. Date of joining and please attached the proof of joining:

15. Brief description, how will this training be useful to you?-

Place:

Signature of the participant

Date:

Recommendation of the forwarding Institution

Date: Signature & seal