



ICAR Sponsored Winter School On



**Molecular mapping of genome and genes/QTLs
with special reference to biotic/abiotic stress and
quality traits**

20th January - 9th February, 2026

**Organized
by
Institute of Biotechnology
*Sher-e-Kashmir University of
Agricultural Sciences and Technology of Jammu***

Course Director
Dr. R. K. Salgotra

Course Coordinators
Dr. Kapil Kumar Tiwari
Dr. Manmohan Sharma



Background

Molecular mapping of genomes and genes/QTLs (Quantitative Trait Loci) has emerged as a powerful approach to dissect the genetic architecture of complex traits and to facilitate marker-assisted selection (MAS). These techniques allow researchers to identify genomic regions associated with biotic and abiotic stress tolerance/resistance, as well as traits related to yield and quality. With the increasing challenges posed by climate change, resource constraints, and the demand for nutritionally enriched crops, molecular mapping provides a strategic tool to accelerate the development of improved crop varieties. The integration of genomics, bioinformatics, and biotechnological tools has further enhanced our ability to explore and utilize genetic diversity for crop improvement.

Eligibility

Participants are invited from SAUs/ICAR Institutes /CAUs/ BHU etc. The participants should possess M.Sc./Ph.D. Degree in Biotechnology/ Molecular Biology & Biotechnology/Genetics & Plant Breeding/ Genetics/Plant Biochemistry/ Seed Science/ Plant Physiology/ Plant Pathology, Bioinformatics or other related disciplines and presently working not below the rank of Assistant Professor/Scientist or equivalent. The total number of participants will be limited to 25.

Time and Venue

The Winter School will be organized for 21 days from 20th January 2026 to 9th February, 2026 at the Institute of Biotechnology, Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu, Chatha, Jammu, Union Territory of Jammu and Kashmir-180009

About the course

The Winter School is designed to strengthen participants' knowledge and practical skills in the field of molecular biology and its applications in crop improvement. The programme will include an extensive series of expert lectures and hands-on practical sessions focusing on advanced molecular techniques related to the discovery of novel genes, alleles, and whole genome sequencing (Oxford Nanopore). Participants will gain in-depth exposure to various aspects of molecular mapping, including whole genome sequencing, bi-parental and association mapping, transcriptome analysis, and the detection of bioactive compounds using analytical tools such as HPLC and GC. The training will also cover screening methods for evaluating genotypes under biotic and abiotic stresses, as well as for assessing quality traits, which are essential components of gene discovery and trait improvement. In addition, lectures will highlight the use of advanced bioinformatics tools and softwares that play a pivotal role in modern molecular biology research and genomics-assisted crop improvement. By integrating theoretical knowledge with practical experience, the Winter School aims to empower participants to effectively apply molecular and bioinformatics approaches in their own research programs.

Registration process

1. Download the winter school application form (available in the brochure). Fill in all the required details and get approval from competent authority

2. Make the online payment. Pay the training registration fee (Rs. 50/-) through any online bank transfer method (NEFT / IMPS /UPI). Use the given bank details:

Save the payment proof/receipt (screenshot or PDF format)

3. Fill the Google application form using the link :

<https://forms.gle/Ls9uBUYRJPCFWT9D9>

or

Scan the QR code



Fill in all the personal and professional details accurately. Upload the required documents (a & b) and then submit the form.

a. Scanned copy of the approved Application Form (PDF)

b. Payment proof/receipt (PDF or image)

4. Email Submission (Optional)

After submitting the Google Form, you may additionally email your duly approved and scanned application form to the Email: directoribt@skuastj.org

Important Dates and Notes

Content	Date
Last date for receipt of application	25 th December 2025
Intimation of selection	31 st December 2025
Confirmation of participation by candidate	5 th January 2026

Payment Details

Beneficiary name:

Director Institute of Biotechnology

Bank name: J&K Bank

Account No. 1235040500000031

IFSC Code: JAKA0EAURSP

Branch: SKUAST CHATHA

Boarding, Lodging and TA

Travel fare to and fro for journey will be provided to all the participants. The payment will be made as per the entitled class of travel, but restricted to the maximum of AC-II tier train/bus by the shortest route for attending the winter school. For out station participants, rent-free accommodation will be provided in University premises. Wholesome meals and refreshments will be as per the normal rules of training course. Local participants will be provided lunch and inter-session tea only. No DA will be paid to participants.

Location and climate

Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu (SKUAST-J) is located at Chatha, near Jammu city, in the Union Territory of Jammu and Kashmir, India. Participants travelling by train or bus can conveniently arrive at Jammu railway station or bus stand. From these points taxi, cabs, auto or city buses are readily available to reach SKUAST- J, Chatha campus, which is located approximately 12 km from railway station and 11 km from bus stand. The climate of Jammu during January is cold. Average day time high temperatures are around 17°C-19 °C, with night time lows dropping to 5°C to 8°C. Participants are therefore suggested to carry adequate warm clothes.

ICAR Sponsored Winter School 2026 at SKUAST-J



Course director:

Dr. R. K. Salgotra

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Course Coordinators:

1. Dr. Kapil Kumar Tiwari

Associate Professor, IBT, SKUAST-J (Mobile No. 7046115784)

2. Dr. Manmohan Sharma

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**Application form for participation in ICAR sponsored
winter school**

On

**“Molecular mapping of genome and genes/QTLs with special
reference to biotic/abiotic stress and quality traits”**

(20th January -9th February 2026)

1. Full Name (In block letters):
2. Designation:
3. Present employer and address:
4. Address for communication:
.....
.....
5. Telephone, Mobile No:
6. E-mail address:
7. Date of birth:8. Sex :
9. Teaching /research experience:.....
10. Area of research:.....

1. Academic Record:

Degree	Discipline	Year	Name of University
Ph. D.			
Master			
Graduation			

2. No. of publication (National & International):
3. Information about previously (last two year) participated summer/winter school etc.
under ICAR /other organization (Give details course, duration and year)
.....
4. Online Payment transaction ID..... Date.

Date

Place

Signature of applicant

Recommendation of forwarding authority

It is certified that information furnished by the has been verified and found correct.

Signature with date and designation and seal