

#### **Plant Breeding and Genetics Winter Internships**

Participate in Plant Breeding and Genetics winter internships to explore cold-stress applications in plant genetics, focusing on breeding for cold-tolerant crops, using genomics and biotechnology for cold-environment adaptation, and marker-assisted selection for developing cold-resistant varieties.

## Focussed Areas under Plant Breeding Genetics Winter Internship

- 1. Genetics of breeding for cold-tolerant crops
- 2. Hybridization techniques for cold-stress resistant plants
- 3. Marker-assisted selection for cold-tolerance traits
- 4. Cold-environment genomics in plant breeding
- 5. Plant genetics for cold-stress disease resistance
- 6. Molecular markers and QTL mapping for cold-resistant varieties
- 7. CRISPR applications for cold-stress tolerance
- 8. Breeding for enhanced yield and cold-resilience
- 9. Cold-stress polyploidy in plant breeding
- 10. Breeding for cold-stress drought and salinity tolerance
- 11. Genetic diversity analysis under cold-stress conditions
- 12. Bioinformatics tools for cold-stress plant breeding
- 13. Molecular breeding for cold-environment adaptation
- 14. Breeding for nutritional quality in cold-stress crops
- 15. Phenotyping for cold-stress resistance
- 16. Epigenetic mechanisms in cold-stress plant breeding
- 17. Breeding for pest and disease resistance in cold environments
- 18. Genomics applications in accelerated cold-stress breeding
- 19. Cold-stress genetic engineering for photosynthesis efficiency
- 20. Breeding strategies for climate-resilient crops in cold environments

### Protocols Covered across various focussed areas under Plant Breeding Genetics Winter Internship

- 1. Cold-stress marker-assisted selection protocols
- 2. Hybridization techniques for cold-tolerant plants
- 3. QTL mapping protocols for cold-resistant varieties
- 4. CRISPR workflows for cold-stress tolerance in crops
- 5. Cold-environment genomics protocols in plant breeding

- 6. Molecular markers for cold-stress disease resistance
- 7. Genetic diversity analysis under cold-stress protocols
- 8. Epigenetic analysis techniques for cold-stress plant breeding
- 9. Molecular breeding for cold-tolerance protocols
- 10. Bioinformatics tools for cold-environment plant breeding research

#### Duration: 5, 10, 15, 20, and 30 Days

# Note: Please cross confirm whether internship slots for this field are available before joining.

Click Here for Plant Breeding Genetics Winter Internship Fees

Application Process and Other info