



Basic Training Course
on

Molecular Markers for Crop Improvement
Center of Excellence in Genomics & Systems Biology (CEGSB)
ICRISAT, Hyderabad, India
10 – 14 December, 2018

Efficient plant breeding requires high-throughput allele determination at low cost for better prediction of an individual's phenotype from its genotype. This is an primary reason for the establishment of ICRISAT's Center of Excellence in Genomics & Systems Biology (CEGSB, <http://cegsb.icrisat.org/>) for empowering national partners to deploy molecular breeding in crop improvement for accelerating genetic gains. ICRISAT's CEGSB in collaboration with CRP-GLDC is pleased to organize the above mentioned training course to train the researchers / breeders in the area of molecular markers, trait mapping and molecular breeding. CEGSB has been organizing several courses in past. More details on these courses are available at: <http://cegsb.icrisat.org/conferences-workshops/>.



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Course Contents (Theory & Demonstrations):

- ❖ Genotype, phenotype and traits
- ❖ Molecular genetic markers
- ❖ Marker types and genotyping platforms
- ❖ Development of mapping populations
- ❖ Linkage and physical maps
- ❖ Linkage analysis of markers
- ❖ Linkage of markers with genes of interest
- ❖ QTL analysis
- ❖ Marker Validation
- ❖ Marker Assisted Selection (MAS)
- ❖ Marker-Assisted Backcrossing (MABC)
- ❖ Marker-Assisted gene pyramiding
- ❖ Cost/benefit analysis on MAS