



No. COH(BLR)/Genomics Trg/AO-159/ 290 /2016-17

To Director
Central plantation crops
Research Institute. Audlu.
P.O. Kasargod, Kerala. 671124.

Sir,

Sub: Organizing ICAR sponsored summer school on "Exploring Genomic Resources for the Improvement of Horticultural Crops" from 1st to 21st July, 2016- reg.

It is my immense pleasure that the College of Horticulture, Bengaluru is organizing ICAR sponsored 21 days summer school on "Exploring Genomic Resources for the Improvement of Horticultural Crops" from 1st to 21st July, 2016. The training emphasizes leveraging genomics resource for the improvement of horticultural crops including hands-on practical sessions. The information brochure of the training is enclosed with this letter for wide circular. I request you to kindly encourage interested faculty members of Assistant Professor Cadre to participate in this training programme.

Thanking you,

Yours faithfully,

Dean and Campus Head

Dean and Campus Head
College of Horticulture, UHS Campus
GKVK Post, Bengaluru - 560 065

Nodal officer, HRD

[Signature]
26-06-2016

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31/6/16

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HRD
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ADDRESS FOR CORRESPONDENCE

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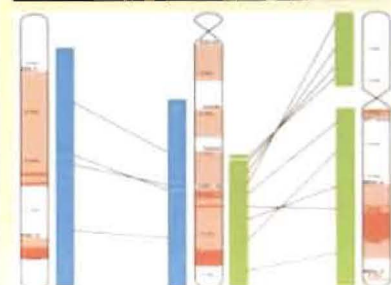
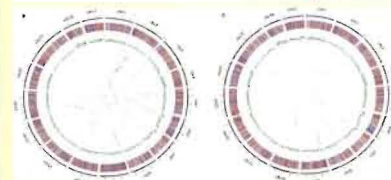
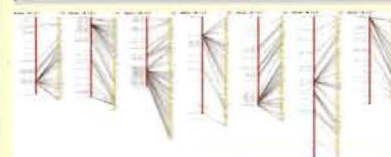
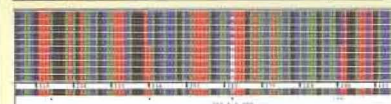
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ICAR Sponsored Summer School ON Exploring Genomic Resources for the Improvement of Horticultural Crops

1st to 21st July, 2016



Course Director

Prof. B. Fakrudin

Course Coordinators

Dr. G.K. Halesh & Dr. Mohan Kumar S.

Organized by

College of Horticulture

University of Horticultural Sciences, Bagalkot
GKV Post, Bengaluru - 560 065
Karnataka, India

BACKGROUND

Application of conventional pre-genomics scientific breeding methodologies has led to the development of modern cultivars, which have contributed to the dramatic improvement of yields of major agri-horticultural crops since the middle of the 20th century: the success has relied in the utilization of natural and mutant induced genetic variation besides efficient selection of the favorable genetic combinations. Much recently, genomics provides breeders with a new set of tools and techniques that allow the study of whole genome, which represents a paradigm shift, by facilitating the direct study of the genotype and its relationship with the phenotype. The combination of conventional breeding techniques with genomic tools and approaches is leading to new genomics-based crop improvement.

Development of high-throughput DNA sequencing and other technical revolutions provide genome-wide molecular tools in terms of large collections of markers, high-throughput genotyping strategies, high density genetic maps, new experimental populations, etc. that can be incorporated into existing crop improvement methods. These developments are improving and accelerating the crop improvement process including assessment of genetic diversity, QTL mapping, association genetics, marker assisted selection, marker assisted backcross, gene/QTL pyramiding, genomic selection etc. Genomic approaches are particularly useful in dealing with complex traits. Availability of large-scale public genomic databases and bioinformatics tools has potential to benefit many horticultural crops. This training has been designed to gain both theoretical and practical hands-on experience of preparation of nucleic acids; DNA marker systems; SSR, EST-SSR, SNP and haplotype discovery by leveraging EST and whole genome databases; transcriptome data analysis, candidate gene discovery and mapping; genotyping assays; development of linkage maps and QTL analysis; association mapping; gene/QTL introgression/pyramiding; gene expression assays and data analysis; QTLomics and validation of candidate genes; genetic engineering; miRNAs and their expression assays.

ABOUT THE COURSE

There will be series of lectures covering above topics vis-à-vis hands-on practical sessions on related techniques. Various bioinformatics tools and statistical methods relevant to the topics will be covered with hands-on practical sessions. Guest faculty from UAS Bengaluru, IIHR, UAS Dharwad, NCBS, C-CAMP, TDU, ICRISAT and other institutions will be invited to deliver niche specific lectures and to have extended discussion.

DATE AND VENUE

This summer school will be for 21 days from 1st to 21st July 2016 at the College of Horticulture, UHS campus, GKVK post, Bengaluru-560 065, Karnataka, India.

ELIGIBILITY

Participants from State Agriculture and Horticulture Universities/ICAR institutions are invited. The participants with Master's/Doctoral degrees in Biotechnology & Crop Improvement; Plant Biotechnology; Plant Biochemistry; Vegetable Science; Floriculture; Fruit Science; Plantation, Medicinal, Spices and Aromatic crops; Genetics and Plant Breeding, Seed Science and Technology, Crop Physiology, Microbiology, Plant Pathology and Entomology not below the rank of Assistant Professor.

REGISTRATION

The interested candidates have to apply online through Capacity Building Programme (CBP) portal at the URL: <http://cbp.icar.gov.in/applyDetails.aspx> Applicant has to pay non-refundable registration fee of Rs. 50/- in the form of a demand draft or Indian Postal Order drawn in favour of 'The Comptroller, UHS Bagalkot' payable at Bagalkot. The online filled-in application should be printed out and sent the same through their competent authority along with registration fee to the Course Director on or before the closing date (15.06.2016). If required, an advance copy of the application may be sent to the Course Director. However, their selection will be subjected to receiving approved application only. The selected candidates will be

informed by e-mail. Selected candidates should confirm the acceptance through return e-mail within two days.

TRAVELLING ALLOWANCE AND ACCOMMODATION

The travel fare to and fro for journey will be provided as per ICAR norms. The reimbursement will be limited to AC II tier train / AC bus by the shortest route for attending the summer school. Travel by air is not permissible. Photocopy of train/bus tickets need to be produced for reimbursement. Participants should make their own transport arrangement to reach the guest house / hostel. For out station participants the accommodation will be arranged on twin sharing basis and cost will be covered as per ICAR norms. Please note that no accommodation in the guest house / hostels will be provided to the family members or guests. Meals and refreshments will be provided as per the ICAR rules of the summer course. The local participants will be provided with lunch and intersession tea only.

WEATHER IN BENGALURU

The weather will be pleasant with average temperature of 24°C with cloud cover and intermittent rains during July month.

HOW TO REACH COLLEGE OF HORTICULTURE, UHS CAMPUS

The College of Horticulture, UHS campus is situated on the western side of the University of Agricultural Sciences, Bengaluru (UAS-B), GKVK campus. It is about 14 km away from Bengaluru city railway station / central bus terminal (Majestic) and 21 km from Kempegowda International Airport, Bengaluru with two approaches, one on Bengaluru-Hyderabad highway (NH-7) and another on Major Sandeep Unnikrishnan (yelahanka-yeshwanthpura) road on the western side of the campus.

IMPORTANT DATES

Last date for receiving applications: 15.06.2016
Intimation of selection: 18.06.2016
Training: 01.07.2016 to 21.07.2016