

A short term training course on  
**“Application of Marker Assisted Selection and Transgenic Development for Crop Improvement”**

February 18-20, 2016

Venue: NRCPB, Pusa Campus, New Delhi

**Training Schedule**

<b>Date</b>	<b>Time</b>	<b>Lecture/Demonstrations</b>	<b>Resource persons</b>
18.02.16	<b>9: 30 AM</b>	<b>Pre-Evaluation of trainees</b>	Dr. Amitha/ Dr. Amolkumar
	<b>10:00 AM</b>	<b>Inauguration</b>	
	<b>10:30 AM</b>	Map based cloning of disease resistance genes/QTLs and their applications	Dr. T R Sharma
	<b>11:15 AM</b>	Molecular markers: Basic concepts, mapping populations and applications	Dr. AK Singh
	<b>12:15 PM</b>	Significance of foreground and background selection in molecular breeding	Dr. Feroz Hossain
	<b>1:15 PM</b>	<b>LUNCH</b>	
	<b>2:00 PM</b>	Next generation DNA markers: Development and their applications	Dr. NK Singh/ Dr. S. Gopalakrishnan
	<b>3:00 PM</b> <b>4.00 PM onwards*</b>	Molecular characterization of transgenic events <b>Demonstration:</b> PCR amplification with SSR and ISSR markers and gel electrophoresis of the amplicons to show polymorphism and selection in a population	Dr. Rohini Sreevatsa Dr. SV Amitha Mithra; Dr. Deepak Bisht
19.02.16	<b>10:00 AM</b>	Role of tissue culture in crop improvement	Dr. SR Bhat
	<b>11:00 AM</b>	Tea Break	
	<b>11:15 AM</b>	Relevance of transgenic plants	Dr. Srinivasan
	<b>12:15 PM</b>	Transgenic development for insect pest resistance	Dr. RC Bhattacharya
	<b>1:15 PM</b>	<b>LUNCH</b>	
	<b>2:00 PM onwards*</b>	<b>Demonstration:</b> Gene amplification; Cloning into binary vector; Confirmation using PCR; Agrobacterium mediated transformation	Dr. Amolkumar Solanke; Dr. Monika Dalal

	<b>4:30 PM<sup>#</sup></b>	Introduction to NGS technologies	Dr. Kishor Gaikwad
20.02.16	9:30 AM	Molecular cloning of plant promoters and their applications	Dr. P K Jain
	10:30 AM	Application of RNAi and genome editing technologies	Dr. D Pattanayak
	11:30 AM	Tea Break	
	11:45 AM	<b>Demonstration:</b> Confirmation of transgenic events using PCR	Dr. Jasdeep Padaria
	1: 15 PM	<b>LUNCH</b>	
	2:00 PM	<b>Demonstration:</b> Southern and Northern blot analysis	Dr. Rekha Kansal;
	3:30 PM	<b>Valedictory</b>	Dr. Rohini Sreevatsa
	4:15 PM	<b>Demonstration:</b> Bioassay	Dr. Amitha/ Dr.
	5:00 PM	<b>Post Evaluation of trainees</b>	Amolkumar