REGISTRATION FORM

CENTRE FOR BIOTECHNOLOGY AND MOLECULAR BIOLOGY (CPBMB),
IT-BT COMPLEX, KERALA AGRICULTURAL UNIVERSITY
VELLANIKKARA [P.O], THRISSUR – 680 656
Tel: 0487-2438576

E-mail: trainingcpbmb2015@gmail.com

1. Name :
2. Designation :
3. Specialization :
4. Post graduation [Completed/ pursuing] :
5. Institute/College/University :
6. Telephone No. :
7. Address for Correspondence :

8. E-mail Address :
9. Training programme applied for :

	Preference
1. Hands on training on techniques in molecular Biology	……..
2. Plant tissue culture and applications	……..
3. Training on techniques in Molecular Biology and Plant tissue culture	…….....
4. Summer training on techniques in Molecular Biology and Plant tissue culture of students undergoing M.Sc. (Biotech)/B.Tech (Biotech)	……
5. Micropropagation of banana and ornamentals for entrepreneurship development ……	
6. Providing facilities for PG dissertation research project to outside university students	……

Mark a tick (√) legibly. Applicants can apply for more than one programme in a single registration form. In that case preference may be indicated in Roman numeral against the Sl. No. of the programme. The following information may please be given:-

10. Mode of payment: (i) In cash or DD in favour of Professor & Head, CPBMB, KAU payable at SBI, KAU Main Campus, Vellanikkara, Thrissur – 680 656

    DD no……..…….. Dated……..…… Amount……..

11. Your involvement in Plant Biotechnology & Molecular Biology:

12. Project title (If applicable) :

13. Details of similar training/workshop attended :

14. Justification for considering for the training Programme selected :

Place:
Date: Signature

Training Curriculum

1. Hands on training on techniques in Molecular Biology

Isolation of nucleic acids and protein. Restriction digestion, Spectrophotometry, Agarose and polyacrylamide gel electrophoresis, blotting techniques. Recombinant DNA technology – cloning- ligation, transformation and recombinant selection. Polymerase chain reaction. Molecular markers and genome mapping. Sequence analysis using bioinformatics tools.

2. Plant tissue culture and applications

Plant tissue culture – principles and concepts – techniques in plant tissue culture – Asepsis essential requirements – different media – culture conditions – different routes of micropropagation – organogenesis, embryogenesis – direct and indirect methods. Different stages – establishment, multiplication, proliferation, rooting and hardening. Applications 1.Commercial micro propagation – clonal fidelity testing, virus indexing 2. Crop improvement, *in vitro* conservation, secondary metabolite production, transgenics. Trouble shooting – concerns and issues, cost benefit analysis.

3. Techniques in Molecular Biology and Plant tissue culture

DNA isolation from plants and microbes, Restriction digestion, Spectrophotometry, Agarose gel electrophoresis. Recombinant DNA technology – cloning- ligation, transformation and recombinant selection. Polymerase chain reaction. Molecular markers and genome mapping. Analysis of data using softwares.

Techniques in PTC – Asepsis - essential requirements – different media – culture conditions – different routes of micropropagation – direct and indirect methods. Different stages – establishment, multiplication, proliferation, rooting and hardening. Trouble shooting – concerns and issues.

4. Summer training on techniques in Molecular Biology and Plant tissue culture for students undergoing M.Sc. (Biotech)/B.Tech (Biotech)

Macro molecules – properties and function – DNA isolation from plants and microbes, Restriction digestion, Spectrophotometry, Agarose gel electrophoresis . Recombinant DNA technology – cloning vectors and cloning- ligation, transformation and recombinant selection. Polymerase chain reaction. Molecular markers and genome mapping. Analysis of data using softwares. Sequence analysis using bioinformatic tools

Plant tissue culture – principles and concepts – techniques in PTC – Asepsis - essential requirements – different media – culture conditions – different routes of micropropagation – organogenesis, embryogenesis – direct and indirect methods. Different stages – establishment, multiplication, proliferation, rooting and hardening. Applications 1.Commercial micro propagation – clonal fidelity testing, virus indexing 2. Crop improvement.

5. Micropropagation of banana and ornamentals for entrepreneurship development

Plant tissue culture – Principles and practices – techniques in plant tissue culture - Scope of tissue culture of banana and ornamentals - Asepsis - essential requirements – different media – culture conditions – different routes of micropropagation – direct and indirect methods. Different stages – establishment, multiplication, proliferation, rooting and hardening. Quality assurance of TC banana – clonal fidelity testing and virus indexing – quality assurance of TC ornamentals - designing a lab - cost benefit analysis – project plan for microenterprise based on tissue culture of banana and ornamentals.

3. Techniques in Molecular Biology and Plant tissue culture

DNA isolation from plants and microbes, Restriction digestion, Spectrophotometry, Agarose gel electrophoresis. Recombinant DNA technology – cloning- ligation, transformation and recombinant selection. Polymerase chain reaction. Molecular markers and genome mapping. Analysis of data using softwares.

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