

SPECIAL FEATURES OF THE WORKSHOP

- Participatory lectures by renowned scientists.
- Free Course Material.
- Hands on training.
- Live Demonstration and Discussion.
- 24hrs internet and lab access.
- Individual desktop for hands on training.
- Lunch and refreshments are our courtesy.

ACCOMMODATION

Boarding and lodging will be arranged for the needy inside the college premises on prior request.

REGISTRATION FEE

- Research Scholars Rs 600/-
- Teachers Rs 700/-

ADDRESS FOR CORRESPONDENCE

For further details and registration please contact

Dr. M. C. John Milton

Convener

Environmental Monitoring Research Laboratory

PG & Research Department of Advanced Zoology and Biotechnology, Loyola College, Chennai 600 034.

Tamil Nadu, INDIA.

Ph : 044 – 28175662, 28178200 Ext 368

Mobile : 09840762382 Fax : 044 – 28175566

Email : drjohnmilton@gmail.com

Web : www.loyolacollege.edu

ORGANIZING COMMITTEE

Patrons

Rev. Fr. A. M. Jayapathy Francis, S.J, Rector

Rev. Dr. D. Selvanayakam, S.J, Secretary

Rev. Dr. F. Andrew, S.J, Principal

Chairperson

Dr. Mrs. J. M. Vimala Kumari Kalaiarasi

Convener

Dr. M. C. John Milton

Organizing Secretary

Prof. Mary Dorothy Anitha Sebastian

Treasurer

Rev. Dr. Thomas Amirtham S.J,

Executive Committee

Prof. A. Amalraj

Dr. S. Vincent

Dr. K. Thresia Mathews

Dr. V. Pushparani

Dr. M. Raja

Rev. Dr. S. Mariapackiam S. J

Prof. V. Jelin

Dr. V. Raja

Dr. D. Robert Selvam

Dr. M. Chandrasekar

Dr. Sherafin Jancy Vincy

Dr. D. Carol

Ms. J. Uma Maheshwari

National Workshop for Biologists on “Practical Biotechnology”

5th to 8th February, 2019 (4 days)



Organized by

Environmental Monitoring Research Laboratory
PG & Research Department of Advanced Zoology and Biotechnology, Loyola College, Chennai 600034.

INTRODUCTION

Biotechnology is a highly interdisciplinary field that combines biological sciences with engineering technologies to manipulate living organisms and biological systems to produce products that advances healthcare, medicine, agriculture, food, pharmaceuticals and environment control. It includes research and development in areas such as Microbiology, Cell biology, Genetics, Molecular Biology etc. for understanding the occurrence and treatment of diseases, development of agriculture, food production, protection of the environment and many more. The top technical skills required for the biotechnology industry are Tissue Culture, PCR, Gel Electrophoresis, Blotting techniques, ELISA, Molecular (Gene) Cloning, Flow Cytometry and Mass Spectrometry.

Hence the academic programmes of our educational institutions need to strengthen and harness these technical skills with adequate theoretical input, so that the aspirants understand the basic principles and applications of this emerging area of biological sciences. The proposed workshop is one such an attempt to introduce the major thrust areas of biotechnology to the participants and make them realize the scope and applications of biotechnology and contribute immensely towards the knowledge development mission of the nation.

THRUST AREAS OF THE WORKSHOP

DNA Isolation

- Isolation of Plasmid DNA
- Isolation of Bacterial Genomic DNA
- Isolation of Yeast Genomic DNA
- Isolation of Fungal Genomic DNA
- Isolation of Genomic DNA from blood
- Isolation of DNA from animal cells
- Isolation of Genomic DNA from Eukaryotic tissues
- Isolation of plant DNA using CTAB extraction method
- Isolation of chloroplast DNA
- Mitochondrial DNA isolation
- Phenol Chloroform Extraction of DNA
- Ethanol precipitation of DNA

RNA Isolation

- Isolation of Total RNA from Bacterial Cells
- Isolation of Total RNA from Plant Tissues
- Hot phenol isolation of RNA from plant tissues
- Acid Phenol Extraction of RNA
- Messenger RNA isolation or Poly (A) RNA isolation

Molecular Biology Methods

- Restriction Enzyme Digestion of DNA
- DNA ligation
- Agarose Gel Electrophoresis of DNA

- Elution of DNA fragments from Agarose
- Phenol purification of DNA from low melting Agarose
- Southern, Northern Blotting and Western Blotting – ELISA
- Cloning - Preparation of competent *E. coli* cells
- PCR and RAPD – PCR
- SDS – PAGE and Bradford Protein Assay and 2D Gel electrophoresis

HOW TO APPLY?

Download application from www.loyolacollege.edu and email the filled in form to drjohnmilton@gmail.com

LAST DATE FOR REGISTRATION

Applications should reach the convener **on or before 2nd February, 2019.**

CRITERIA FOR SELECTION

Students, Research Scholars and Teachers from life sciences will be given preference and selected candidates will be intimated on or before **3rd February, 2019.** Selected candidates can pay the registration fee on the inaugural day of the workshop.

