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# National Symposium on “Working with DNA and RNA”

20<sup>th</sup> to 23<sup>rd</sup> February 2024 (4 days)



### Sponsored by

Department of Biotechnology  
Ministry of Science and Technology  
Government of India



### Organized by

Environmental Monitoring Research Laboratory  
Department of Advanced Zoology and Biotechnology,  
Loyola College (Autonomous), Chennai 600034.

## Registration

Click the link below or scan QR code

<https://forms.gle/ZLg2dQbs7xq5XYGw6>



## ABOUT THE SYMPOSIUM

The role of DNA and RNA in understanding the origin and survival of all living creatures is phenomenal. Biologists have always been inclined to learn and explore more and more about these molecules, even since their discovery. These molecules are attributed to all aspects of human life, especially in the context of the COVID-19 pandemic. There is an increasing demand to hone the skills of biologists in the extraction, isolation, purification, and amplification of DNA and RNA. Hence, this symposium is organized to train biologists in this most promising area of specialization and promote research and development. A symposium on DNA and RNA holds significant importance and relevance due to the central roles these molecules play in the fields of life sciences and biotechnology. DNA and RNA are fundamental components of all living organisms, and their study is crucial for a deeper understanding of genetics, gene expression, and molecular biology.

There are around 25 resource persons composed of academicians, researchers, and representatives of the biotechnology industry involved in training and disseminating knowledge on the thematic areas of biotechnology to the participants. This initiative would enable the participants to pursue research in the field of biotechnology and contribute immensely towards fulfilling the national priorities of our country.

## THRUST AREAS OF THE WORKSHOP

### DNA Isolation

- Plasmid and bacterial Genomic DNA
- Yeast and Fungal Genomic DNA
- Genomic DNA from blood and animal cells
- Genomic DNA from Eukaryotic tissues
- Plant DNA using CTAB extraction method
- Chloroplast and mitochondrial DNA
- Phenol Chloroform Extraction of DNA
- Ethanol precipitation of DNA

### RNA Isolation

- RNA from Bacterial Cells and Plant Tissues

- Hot phenol and acid phenol Extraction of RNA from plant tissues
- Messenger RNA isolation or Poly (A) RNA isolation
- 16s rRNA sequencing

## Purification and amplification

- Restriction Enzyme Digestion of DNA and 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, ELIZA
- PCR and RAPD – PCR

## Bioinformatics and bioethics

- Animal rights and IPR
- Cheminformatics and
- Drug designing

## ELIGIBILITY

Faculty/PG students/Research Scholars/PDF from Life sciences, Earth Sciences, Physical Sciences, Chemical Sciences, and Computational Sciences. Please visit [www.loyolacollege.edu](http://www.loyolacollege.edu) for more details.

## HOW TO REGISTER

Click the link below and complete the registration form. Applicants will be shortlisted, and selected participants will be notified via email. The registration fee is for the symposium kit, lunch, and refreshments and could be paid on the day of the inauguration.

**Registration LINK:** <https://forms.gle/ZLg2dQbs7xq5XYGw6>

## REGISTRATION FEE

PG Students	Rs 400/-
Research scholars/PDF	Rs 500/-
Faculty	Rs 1000/-

## ACCOMMODATION

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