



Department of Botany
Madras Christian College
(Autonomous)
East Tambaram, Chennai- 59

Organizes

Summer Internship on
“Applications of DNA Barcoding in
Molecular systematics and
Biogeography”

(Hands on Wet Lab training and Phyloinformatic analysis)

Patron

Dr. P. Wilson
Principal & Secretary, MCC

Convener

Dr. E. Joyce Sudandara Priya
HoD, Dept. of Botany, MCC

Organizing Secretary

Dr. U. Senthilkumar
Dept. of Botany, MCC

Organizing Team

Faculty, Dept. of Botany, MCC

DATE

**29th May-
14th June 2023**

VENUE

DNA Barcoding Laboratory
Department of Botany
Madras Christian College (Autonomous)
Tambaram, Chennai- 600 059

REGISTRATION

FEE DETAILS

Rs. 7080/- (Including 18% GST)
*Inclusive of Refreshments, Internship kit & Course Material



<https://onlinemccedu.org/Thirdparty>

Summer Internship on

“Applications of DNA Barcoding in Molecular systematics and Biogeography (Hands on Wet Lab training & Phyloinformatic analysis)”

Who can apply?

PG/PhD
in Life Sciences

15-DAYS
INTERNSHIP

TIME

10.00 AM-
4.00 PM

Levels of
Summer Internship

Level 1: INTRODUCTION TO DNA BARCODING

1. Principles
2. Methods
3. Applications with case studies

Level 2: IDENTIFY THE RESEARCH PROBLEM- Learn here

1. Selection of taxon- How? For What?
2. What is your hypothesis?
3. Rationale in identifying methods/tools for systematics

Level 3: IN-SILICO ANALYSIS

1. Find out the barcode-gap
2. Select the appropriate marker
3. In-silico PCR- Primer Design
4. Primer synthesis*

Level 4: WORKFLOW- Hands-on

1. DNA Isolation- Whole genomic DNA
2. PCR Amplification
3. GEL electrophoresis
3. PCR purification
4. Sequencing*

* Outsource activity

Plant samples can be analyzed here

Participants must bring their laptops

For Any Queries
Contact:
Dr. Senthilkumar U.
9176582913

DNA Barcoding Workflow



Level 5: Post-Sequencing strategies

1. Curate sequence data
2. Sequence Edit/ Alignment- MSA
3. Creation of dataset
4. Learn how to select various phylogenetic methods and its analysis