

**AICTE QIP
SHORT TERM TRAINING
PROGRAMME**

On

**RECENT ADVANCES IN STEM
CELLS AND TISSUE
ENGINEERING**

March 23, 2020 – March 28, 2020

Coordinators:

Dr. Rama Shanker Verma

Sponsored by

All India Council for Technical Education



Organized by

**Department of Biotechnology
Bhupat and Jyoti Mehta School of
Biosciences
Indian Institute of Technology
Madras**

BACKGROUND

The proposed short-term course is designed to enhance and strengthen the basic knowledge on stem cells their potency and their role in tissue regeneration.

It is aimed to familiarize the participants with advanced topics that include biomaterials used for tissue regeneration, 3D printing, nanotechnology in tissue regeneration and molecular techniques such as molecular cloning, transfection, transduction and western blotting.

COURSE CONTENT

Stem Cells

Introduction

Potency of Stem Cells

Types of Stem Cells and their therapeutic use

Biomaterials

Bioactive Scaffolds

Regenerative Scaffolds

Current trends and Clinical trials of Biomaterials

3D Printing

Designing strategies in 3D Printing

Organ Printing Bioreactors

Future prospects in 3D Printing

Nanotechnology in tissue regeneration

Nanofabrication Technique

Application in Medicine

Molecular Techniques

Molecular Cloning, transfection and transduction

Western Blotting

COURSE MATERIAL

Each registered participant will be provided with a set of comprehensive lecture notes.

FACULTY

1. Dr. Nibedita Lenka, Scientist, NCCS, Pune.
2. Dr. Shweta Bhatt Chief Scientific Officer, Yashraj Biotechnology, Ltd. Mumbai.
3. Dr. Rajarshi Pal, Chief Scientist, Eystem Research Pvt Ltd, Bangalore.
4. Dr. Deepa Bhartia, Scientist, NIRRH, Pune.
5. Dr. Krishnakumar, Deputy Research Director, VRF, Sankara Nethralaya, Chennai.
6. Dr. Geetha K Vemuganti, Professor, School of Medicinal Science, University of Hyderabad.
7. Dr. Poorna Sai, Scientist, CLRI, Chennai.
8. Dr. Sheila Mohan, Peditrician, Apollo Hospital, Chennai
9. Dr. Sowmiya Parameshwaran, Principle Scientist, VRF, Shanakara Nethralaya, Chennai.
10. Dr. Kavitha Govarthanam, Research Fellow, IIT Madras.

COURSE DURATION & VENUE

The course is of five days duration from **March 23 to March 28, 2020** Classes will be held at IC&SR, IIT Madras, Chennai.

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Application Form

- **Name (block letter):**
- **Designation & PayScale:**
- **Organization:**
- **Address for communication:**

Pin code: _____ **Ph. No.:** _____
Fax No. _____ **E-mail:** _____

- **Highest Academic
Qualification: Specialization:**
- **Experience (in years):**
(a) **Teaching:** _____ (b) **Industrial:** _____

Amount of TA required as per entitlement mentioned in this brochure (only for AICTE approved college teachers):

- **Accommodation:**

Required / Not Required
(Local participants will not be provided accommodation)

All data provided are true to the best of my knowledge and belief. Kindly register me for the short-term course on "Recent Advances in Biotechnology related to Tissue Regeneration" to be held at IIT Madras.

Place:

Date: _____ Signature of the Applicant

SPONSORSHIP

Prof./Dr./Mr./Ms./Mrs./_____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course "Recent Advances in Stem cells and tissue engineering" at IIT Madras during March 23 to March 27, 2020, if selected.

Date: _____ Signature of Sponsoring Authority
Designation: _____
Official Seal: _____

_____ Provisionally selected candidates have to send a DD for Rs. 500/- as caution-money:

DD No. _____ Date: _____

Bank: _____

Amount: _____

_____ Signature of the Applicant

The duly sponsored application form should be posted to:

Dr. Rama Shanker Verma
Department of Biotechnology
IIT Madras, Chennai-60036.

ELIGIBILITY

The course is open to faculty with background in Biotechnology and allied branches (Biochemistry, Microbiology, Molecular Medicine, Zoology, Bio-Medical Engineering) from engineering colleges approved by AICTE. **No course fee** is charged for participants sponsored by AICTE approved institutions. However, Rs 500/- caution-money has to be sent by the provisionally selected participants,

which will be returned back once the participant joins the course.

All payments are to be made by demand draft drawn on any nationalized bank in favour of **CCE, IIT Madras payable at Chennai.**

FINANCIAL ASSISTANCE

Limited number of participants from AICTE recognized engineering institutions will be eligible for to and fro railway fare via shortest route in 3-Tier AC class and free lodging and boarding in IIT Madras guest house during the course period. Candidates attending the course for complete duration only will be eligible for TA and DA.

BOARDING AND LODGING

Boarding and lodging facilities will be provided for the selected candidates from AICTE approved institutions in the Taramani guest house at IIT Madras. Accommodation will be on twin sharing basis.

IMPORTANT DATES

Last date for application : **29-02-2020**
Intimation of selection (by email) : **10-03-2020**
Confirmation of participation (by email) : **15-03-2020**

QIP STTP details, application and updates:

Center for Continuing Education, IITM:

<http://www.cce.iitm.ac.in/>

Department of Biotechnology, IITM:

<https://biotech.iitm.ac.in/>

Course coordinators Profile:

Dr. Rama shanker Verma

<https://biotech.iitm.ac.in/faculty/faculty/rama-s-verma/>