

PROGRAM CONTENT

The participants will be provided with hands on training on:

- Aseptic stem cell culture technique
- Isolation of stem cells from bone marrow
- Stem cell culture, freezing and thawing
- Stem cell characterization assays
- Stem cell differentiation assays
- Real Time PCR
- ELISA
- Western Blotting

REGISTRATION FEE DETAILS

The Registration is free of cost, however the participants must initially register with a Demand draft for Rs. 500/- which will be reimbursed upon attending the programme completely. The Demand Draft must be drawn in favor of "The Principal", SVCE, Sriperumbudur payable at Indian Bank, Sriperumbudur. Filled in registration form along with DD should be sent to the address given below on or before 10th November, 2017. *The number of participants is limited to 50.*

ADDRESS FOR COMMUNICATION

Organising Secretary

Dr. Nalinkanth V. Ghone

Professor, Department of Chemical Engineering
Adjunct Professor, Department of Biotechnology
Sri Venkateswara College of Engineering
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Faculty Development Programme on Stem Cell Characterization and Advances in its Research and Applications

Nov 27th – Dec 8th, 2017

REGISTRATION FORM

1. Name :
2. Designation :
3. Age :
4. Participant Category :
(Research Scholars / Faculty member)
5. Name of the Institution with postal address:
6. E-mail ID:
7. Mobile number:
8. Specialization:
9. Registration fee:
Demand draft No. & Date:

Declaration

I agree to abide by the rules and regulations of the FDP.

Place:

Date:

Signature of the Candidate

Signature of the Head
of the Institution

(Copy of this form can be used for registration)

SRI VENKATESWARA COLLEGE OF ENGINEERING

Affiliated to Anna University, Chennai

An ISO 9001:2008 certified Institution

Accredited by NBA, New Delhi



AICTE Sponsored Faculty Development Programme on Stem Cell Characterization and Advances in its Research and Applications

Nov 27th – Dec 8th, 2017

Conveners

Prof. M. Sivanandham
Prof. E. Nakkeeran

Organising Secretary

Dr. Nalinkanth V. Ghone

Coordinator

Mr. J. Hariharan

Organized by

Department of Biotechnology
Sri Venkateswara College of Engineering
Pennalur, Sriperumbudur - 602117, Tamilnadu, India.

<http://www.svce.ac.in>

ABOUT THE INSTITUTION

Sri Venkateswara College of Engineering (SVCE), one of the premier technical institutions in Tamilnadu, was established in 1985. The College is situated on the Chennai – Bangalore National Highway (NH4) about 37 km south-west of Chennai. The college offers 10 UG programmes and 12 PG programmes. The National Board of Accreditation accredited many of the eligible programmes, and SVCE is an ISO 9001:2008 certified institution.

DEPARTMENT OF BIOTECHNOLOGY

Sri Venkateswara College of Engineering noted the recent growth in Modern Industrial Biotechnology. In order to support the growth in biotechnology, SVCE started the Department of Biotechnology in 2005 under the guidance of our Chairman Dr. A. C. Muthiah, a well known Industrialist who understands the strength of Industrial Biotechnology. The department offers B.Tech and M.Tech Biotechnology programme under Anna University, Chennai, approved by AICTE. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programmes by Anna University, Chennai. The department is equipped with full-fledged traditional biotechnology related laboratories and in addition has an IAEC approved in house animal facility.

ABOUT THE FDP

The global stem cell market which is expanding at a compounded annual growth rate of 24.2% necessitates generation of skilled manpower for industrial bioprocessing of stem cells and associated research. Due to the lack of skilled manpower, a FDP on 'Stem Cell Characterization and Advances in its Research and Applications' is conducted to train the faculty and

research scholars and thereby create awareness to the students to meet the current demand.

PROGRAMME HIGHLIGHTS

Objective of this faculty development programme is to promote the knowledge/skills concerned with the basics of stem cells, its isolation, characterization and advanced potential applications in translational research and regenerative medicine by:

- Creating a platform for experts from academia and research institutes to share their knowledge and recent findings in the field of stem cell technology with faculty members, research scholars and their peers.
- Providing hands on training on the aseptic culture technique of stem cells, isolation of stem cells from bone marrow using animal model, lineage specific differentiation of stem cells, characterization using advanced molecular biology techniques and bioprocessing of stem cells using WAVE bioreactor.

RESOURCE PERSONS

Resource persons from following reputed Academic institutions and industries will handle and deliver the sessions.

1. IIT Madras, Chennai
2. Anna University, Chennai
3. Centre for Stem Cell Research, CMC, Vellore
4. LifeCell International Pvt. Ltd, Chennai
5. Sankara Nethralaya, Chennai
6. Stem Cell Research Centre, SMC, Chennai
7. Sri Research For Tissue Engineering Private Limited, Bangalore

PARTICIPANTS

Faculty members and Research scholars from AICTE affiliated institutions can attend. Total number of participants is limited to 50. Therefore, early registration is highly recommended.

VENUE AND DURATION

This FDP is organized at Department of Biotechnology, Sri Venkateswara College of Engineering (SVCE), Sriperumbudur, Tamilnadu, India, from Nov 27th – Dec 8th, 2017

TRAVEL ALLOWANCE & ACCOMODATION

The Reimbursement of Travel expenses will be made as per the AICTE guidelines. TA will be provided to the outstation participants on submission of necessary documents. Accomodation will be provided on limited basis on prior request for outstation participants. The participants can avail the SVCE bus facility to attend this workshop. For route details, please refer <http://www.svce.ac.in>.

IMPORTANT DATES

Last date for registration : 10.11.2017

Intimation of selected Candidates through email : 13.11.2017

Maximum number of participants : 50

For any further clarifications kindly e-mail to scara2017@svce.ac.in or visit webpage www.svce.ac.in/scara2017

IMPACT ANALYSIS OF FACULTY DEVELOPMENT PROGRAMME

ON

'STEM CELL CHARACTERIZATION AND ADVANCES IN ITS RESEARCH AND APPLICATIONS'

27th NOVEMBER, 2017 TO 8th DECEMBER, 2017

DEPARTMENT OF BIOTECHNOLOGY

SRI VENKATESWARA COLLEGE OF ENGINEERING, SRIPERUMBUDUR

The two weeks faculty development programme on Stem Cell Characterization and Advances in its Research and Applications was conducted during 27th November to 8th December 2017 in the Department of Biotechnology at Sri Venkateswara College of Engineering.

A total of **53** candidates from all over India registered and participated in this FDP and got trained. Out of which **11** participants are outstation participants. For the two week FDP programme, **14** resource persons gave guest lectures on various topics relevant to the field of stem cell technology. Among them **2** were from industry and others are from academic and research institutions. This provided a platform for networking and exchange of ideas between industrial persons and researchers. The interdisciplinary nature of this field has attracted and benefited the faculty from different disciplines and provided avenues to continue research in this field. One of the industrial speakers, Ms. Subha Dravida, a woman entrepreneur was inspirational to the women participants. In this two week programme the participants were exposed to **16** theoretical sessions, **23** sessions of hands on training and one day industrial visit to M/s Life Cell International Pvt Ltd, Chennai. The hands on session using animal house facility and tissue culture facility has provided some insights on how to start those facilities and from whom to get the approval. This knowledge has impacted some faculty members and prompted them to push their corresponding management to have those facilities.

Industrial visit to M/s Life Cell International Pvt Ltd, Chennai, coupled with lectures from physicians and researchers has clarified some of the doubts related to storage of stem cells for future use.

Through this FDP each faculty was provided with a textbook on "Tissue Engineering" by Palsson and Bhatia, PEARSON Publishers, 2016 edition as manual. As this book is prescribed textbook by Anna University, Chennai for VII Semester Biotechnology elective subject 'Tissue Engineering'. This provided an opportunity for the faculty members to offer the elective in



Prof. M. Sivanandham, Secretary, SVEHT delivered lecture during inauguration of AICTE sponsored FDP on Stem Cell Characterization & Advances in its Research And Application

corresponding institutions. The technical knowhow and application of stem cells has provided new avenues for research scholars.

The overall feedback provided by the participants for the event was more than satisfactory for their needs. The complete feedback analysis report is available as Annexure I. The organizer thank the AICTE and "BHARAT SARKAR" for providing necessary funds to conduct this programme.

Summary of the impact of FDP:

1. Impacted Mr. P. Venkatesh, Assistant Professor, Sri Ramakrishna Engineering College, to start Tissue culture facility in the Department of Biomedical Engineering.
2. Impacted 25 participants from 12 various engineering colleges in Tamilnadu to offer courses related to Stem Cells, Biomaterials and Tissue Engineering.
3. Influenced the decision of around 40 participants to opt for storage of mesenchymal stem cells from umbilical cord in future.
4. Motivated the women participants to become as entrepreneurs.
5. Influenced the participants from different discipline such as Chemical Engineering and Applied Sciences to seek research opportunities in the field of stem cell based tissue engineering.



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