



**SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES & UNIVERSITY**  
Invites you to the, **National workshop on Basics of Cell Culture**  
**Techniques on 20<sup>th</sup> to 28<sup>th</sup> April, 2018 at DEPARTMENT OF**  
**BIOTECHNOLOGY, SVIMS University, Tirupati**

The workshop Brochure is <http://svimstpt.ap.nic.in>

Limited registrations available . Register Now: [sarmasvims@gmail.com](mailto:sarmasvims@gmail.com)

Accesses to the Department of Biotechnology : <http://svimstpt.ap.nic.in/Biotechnology.html>



## REGISTRATION FORM

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Attach your latest Curriculum Vitae (C.V.)

Accommodation Requirement

YES

NO

**Tariff/day:**

A/C Rooms: Rs - 500/-

Non A/C Rooms: Rs - 300/-

**Last date for applying: 31.03.2018**

### Contact Details

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Prof. T.S. Ravi Kumar

Director cum Vice Chancellor  
SVIMS University

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SVIMS University

Prof. V. Suresh,  
Coordinator for BT & BI,  
SVIMS University

#### Convener of the workshop

Dr P.V.G.K. Sarma

Head & Associate Professor,  
Dept of Biotechnology,  
SVIMS University

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Dr. A. Umamaheswari,  
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Dept of Biotechnology,  
SVIMS University

Mr. P. Santhosh Kumar  
Dept of Biotechnology,  
SVIMS University

# Sri Venkateswara Institute of Medical Sciences



## National work shop on Basics of Cell culture Techniques

Organized by  
DEPARTMENT OF BIOTECHNOLOGY  
SVIMS University, TIRUPATI



20<sup>th</sup> April, 2018 to 28<sup>th</sup> April, 2018.

## ABOUT SVIMS

Sri Venkateswara Institute of Medical Sciences, a tertiary care referral centre and a jewel in the crown of the Tirumala Tirupati Devasthanams, Tirupati, has established itself as a Medical University of repute with the blessings of Lord Venkateswara. SVIMS hospital has acquired the state-of-art equipment with well recognized faculty & best practices. It was established with a view in providing Super Specialty facilities with nominal cost to the poor. Its major objectives include service, training and education & research in advanced medical sciences and technology. SVIMS has well trained, dedicated faculty to serve the poor and needy patients belonging to not only Andhra Pradesh but also for the neighboring states as well. SVIMS has been recognized by Medical Council of India (MCI) since 2003 it has various super specialty courses. In addition it also has Sri Padmavathi Medical College for Women, College of Nursing, College of Physiotherapy and Allied health science. In 2006, the Government of India included SVIMS as one of the institutions for up gradation at par with AIIMS, New Delhi.

## ABOUT BIOTECHNOLOGY

The Department was established in the year 2003 with the consent of former president of India Late Dr. A.P.J. Abdul Kalam and inaugurated by then Chief Minister of Andhra Pradesh, Sri N. Chandra Babu Naidu. A grant of Rs 25 Lakhs was sanctioned from Govt. of Andhra Pradesh for infrastructural development. The department offers two courses: M.Sc Biotechnology with intake of 15 students and Ph. D in Biotechnology with intake of 6 students.

The Department of Biotechnology concentrates on three major areas : i. Microbial Genomics laboratory with a view to develop new antimicrobials against multidrug resistant (MDR) strains of *Staphylococcus aureus*. ii. Haematopoietic Stem cell (HSCs) and cell culture laboratory; the aim of this laboratory is to provide pure stem cells for transplantation and to explore the transdifferentiation ability of HSCs to various cell types of human body. iii. Medical Genetics laboratory: This laboratory mainly identifies various mutations and polymorphisms in gene(s) of different diseases in the patients reported to SVIMS.

So far we have developed two potent antimicrobials against MDR strains of *Staphylococcus aureus* and their biofilms. Various novel mutations in the following genes: Polycystic kidney disease 1 (PKD1), Angiotensin I converting enzyme (ACE), Von Hippel- Lindau (VHL), Wilm's tumor 1 (WT1), Complement Factor H (CFH), Proline-serine-threonine phosphatase-interacting protein 1 (PSTPIP1/CD2BP1), ATPase V-type subunit B1 (ATP6V1B1), Glucokinase (GCK), BRCA1, BRCA2, MGMT, NF-2, AKT, NPHS1, BCR-abl, etc., were identified. HSCs were transdifferentiated into Cardiomyocytes, Astrocytes, Oligodendrocytes, Type II pneumocytes, Osteocytes,  $\beta$ -cells of islets of Langerhans, Podocytes, Erythrocytes etc. These differentiated cells can be used to understand the pathogenesis of various diseases.

## ABOUT WORKSHOP

The Department is conducting a workshop on Cell culture techniques to tune young researchers working in the field of animal/human cell biology. In this workshop the candidates will be given hands on training.

This workshop will be helpful in introducing the cell culture techniques to candidates who want to start cell culture facility in their organization/Universities.

The topics include,

1. Sub-culturing: cold and warm trypsinization, cell viability analysis (MTT assay) and cell count
2. Evaluation of growing culture: Immunocytochemical and Western Blot analysis
3. Assessment of gene expression in growing cell culture
  - i. Total RNA extraction
  - ii. cDNA conversion
  - iii. Real-Time quantification of gene expression
4. Metabolic status of the growing cells by assessing enzyme activities.
5. Flow cytometry analysis.
6. Two guest lecturers in cell culture

## DURATION OF THE WORKSHOP

20<sup>th</sup> April, 2018 to 28<sup>th</sup> April, 2018.

## REGISTRATION

The number of candidates for the workshop would be limited to 15 only. The interested candidates have to send their C.V. to [sarmasvims@gmail.com](mailto:sarmasvims@gmail.com). The selected candidates are informed through E. Mail. The selection is based on first come first served basis including lunch with a registration fees of Rs. 20,000/-.

## ACCOMMODATION

Accommodation would be provided in the University guest house on prior request and payment. Tariff: A/C Room - Rs 500/- per day and Non-A/C Room - Rs 300/- per day.