



**VIT**<sup>®</sup>  
**UNIVERSITY**  
(Estd. u/s 3 of UGC Act 1956)

Vellore-632 014, Tamil Nadu, India.

5<sup>TH</sup> PRACTICAL SUMMER TRAINING ON  
**CHROMATOGRAPHY, MOLECULAR BIOLOGY & BIOINFORMATICS (PCMB)**

June 04 - 15, 2012



**Organized by**

**School of Bio Sciences and Technology (SBST)**

VIT University, Vellore – 632 014, Tamil Nadu, India

VIT – A place to learn; A chance to grow

## 5<sup>TH</sup> PRACTICAL SUMMER TRAINING ON **CHROMATOGRAPHY, MOLECULAR BIOLOGY & BIOINFORMATICS (PCMB)**

### **About VIT University**

Founded in 1984 as Vellore Engineering College, the institute was declared a University in recognition of its academic excellence by the Ministry of Human Resources Development, Government of India in 2001. The University has since grown by leaps and bounds – establishing excellent infrastructure replete with state-of-the-art laboratories, digital library, smart class rooms, hostels, gyms, swimming pools, auditoria and stadium spread over an impeccably clean and green 250 acre campus - on the way to fulfill the vision of the founder and Chancellor Dr. G. Viswanathan to make it truly World class. VIT today comprises of nine constituent Schools and interdisciplinary Centers offering undergraduate, graduate, post graduate and research programs upto PhD level.

VIT is the first educational institution of India to get ISO 9002 Certificate by the DNV of The Netherlands. It is again the first Institute in India to get accreditation from IEE (UK). Further it has also been accredited by NBA (AICTE) and NAAC (UGC). VIT has signed MoUs with Institutions within India and from countries like Australia, Canada, France, Germany, Italy, UK and USA in various disciplines towards exchange of faculty and students, joint programs involving courses as well as research and improvement of laboratory and library facilities.

### **About SBST**

School of Bio Sciences and Technology is offering B. Tech, M. Tech., M. Sc., and Ph. D. programmes in Biotechnology and many other allied areas. SBST has adequate infrastructure for carrying out academic, research and developmental activities in different areas of Biotechnology. Major areas of research include Molecular Genetics, Plant Biotechnology, Microbiology, Cancer Biology, Bioinformatics and Biomedical Engineering.

As a part of SBST extension activity, both for students and faculty members, PCMB is being organized every summer. For the fifth consecutive year, we are organizing the 5<sup>th</sup> practical training during the summer 2012.

### **Scope of training**

This course aims to provide exposure to Chromatography, Bioinformatics and Molecular Biology techniques. Experts from academic and industry will be involved as resource persons. The participants will be interacting with experts and will get acquainted with practical aspects of various techniques along with the underlying principles. Experiments will be conducted in small

groups under the expert supervision where individual participants will follow experimental protocol designed in different areas. Practical demonstrations and lectures related to different experiments are part of the workshop.

## Techniques

- Cloning of DNA in bacterial expression vectors: PCR amplification of gene → Gel purification of DNA → Restriction digestion → Ligation → Bacteria Transformation
- Expression and purification of proteins expressed in bacteria : IPTG induction of gene expression in BL 21 bacteria → Purification of GST tag protein from bacteria → Analysis of purified protein by SDS PAGE
- Chromatography : Gel permeation Chromatography, Ion exchange Chromatography & HPLC
- Techniques in Bioinformatics and Biophysics
- Enriched mRNA preparation – cDNA synthesis – Semi-quantitative RT-PCR
- Real time PCR
- Primer design for smart cloning in vectors, primer design for gene expression studies, primer editing, probe design.

## Eligibility and Selection criteria

Students of M. Sc / M.Tech / B.Tech in Biochemistry, Microbiology, Life Sciences, Biotechnology **or** Research Scholars / Faculty members / industrialists belonging to above field are eligible to apply. **Only 40 candidates** will be selected by first come first serve basis. The selected candidates will be informed by email on or before **May 04, 2012**.

**Registration Fees** (Registration fees includes registration kit and working lunch)

- Rs.6,000 for students and research scholars
- Rs.7,500 for faculty members and industrial persons

**Accommodation** (Will be arranged on request only in VIT Hostel)

Hostel - Rs.150 per day

For further details about hotels in Vellore visit <http://www.vit.ac.in/guesthouse/hotels.asp>

## Registration

Send the registration form along with the prescribed fee as a DD (*draft in favour of VIT University, payable at Vellore*) to the Organizing Secretary on or before **May 4, 2012**.

## Organizing Committee

### Chief Patron

**Dr. G. Viswanathan**

Chancellor

### Patrons

**Mr. Sankar Viswanathan**

Vice-President, Administration

**Mr. G.V. Sampath**

Vice-President, Operations

**Mr. Sekar Viswanathan**

Vice-President, University Affairs

**Mr. G.V. Selvam**

Vice-President, Chennai campus

**Prof. V. Raju**

Vice-Chancellor

**Prof. S. Narayanan**

Pro Vice-Chancellor

### Chairperson

**Prof. Gopinath Anilkumar**

Director, SBST

### Organizing Secretary

**Dr. K. M. Gothandam**

### Organizing Members

**Dr. G. Jayaraman**

**Dr. S. Babu**

**Mr. S. Karthikeyan**

**Dr. M. Anbalagan**

**Mr. A. Sivakumar**

**Mr. I. Arnold Emerson**

### Address for communication

**Dr. K. M. Gothandam**

Organizing Secretary, PCMB

SBST, VIT University

Vellore - 632 014, Tamil Nadu.

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Website : [www.vit.ac.in/pcmb](http://www.vit.ac.in/pcmb)



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**June 04 - 15, 2012**

**REGISTRATION FORM**

**Name (Block letters) :**  
**Sex :**  
**Degree and discipline :**  
**Institute/Industry/Company :**  
**Academic qualifications**

Affix your  
recent passport  
size photograph  
here

Degree	Discipline	University	Period
U.G.			
P.G.			
Ph. D.			

**Contact details**

**Address for :**  
**correspondence**

**E – mail :**

**Mobile No. :**

**Accommodation : Needed / Not needed (only in VIT Hostel Rs.150/ per day)**

**Payment details (Demand Draft drawn in favour of VIT University, Payable at Vellore)**

**Bank Name :**

**DD. No. and date :**

Date:

Signature of the candidate

Last date for submission of registration form along with Demand Draft is **May 04, 2012**

Send to: **Dr. K. M. Gothandam, Organizing Secretary, PCMB, SBST, VIT University, Vellore 632014**