



# AARUPADAI VEEDU MEDICAL COLLEGE & HOSPITAL

VINAYAKA MISSION'S RESEARCH FOUNDATION - Deemed to be University



## HANDS ON TRAINING IN REAL TIME PCR & ITS APPLICATION IN MOLECULAR DIAGNOSTICS

July 3<sup>rd</sup> - 4<sup>th</sup> 2019

Venue: Center for Biomedical Research, AVMC, Puducherry

Jointly organized by

Multi-disciplinary- Center for Biomedical Research, AVMC, Puducherry  
& Helini Biomolecules, Chennai

The Two-day workshop focuses on the basis of quantitative PCR (qPCR) followed by their application in early clinical diagnosis of viral/ bacterial/ fungal diseases and Human Single Nucleotide Polymorphism detection.

In this workshop, technical talks and the hands-sessions will be conducted by experienced specialist. This workshop is suitable for clinicians, scientist, researchers and students.

Day  
1

Real time PCR or Standard PCR based early diagnosis of viral / bacterial / fungal diseases

Day  
2

Human [SNP] Single nucleotide Polymorphism detection

### REGISTRATION DETAILS

2  
Days

Early Bird registration ₹ 3500

Normal Registration ₹ 4500

Early bird registration deadline 31<sup>st</sup> May 2019

Register online  
<https://forms.gle/Px62LAX8qbg2RL5M8>

Email ID  
[principalscientist@avmc.edu.in](mailto:principalscientist@avmc.edu.in)

REGISTRATION ON FIRST COME  
FIRST SERVED BASIS

Only  
25  
PARTICIPANTS

#### CHIEF PATRON

*Honorable Chancellor*

**Dr. A.S.GANESAN**

*Madame Chancellor*

**Dr. ANURADHA GANESAN**

#### PATRON

**Dr. M.K. MURALIDHARAN, Dean**

#### ADVISORY COMMITTEE

**Dr. POONAVAIKO, Provost**

**Dr. R. ANNABELLE, Director Research**

**Dr. V.N. MAHALAKSHMI, Dean-HPE**

**Dr. T. RAJAN, Vice-Principal**

#### Organizing Team

**Dr. Sambandam Ravikumar**

@ [ravikumar.sambandam@avmc.edu.in](mailto:ravikumar.sambandam@avmc.edu.in)

**Dr. R. Jawahar**

@ [jawahar.ramasamy@avmc.edu.in](mailto:jawahar.ramasamy@avmc.edu.in)

**Mr. R. R. Kumar**

@ [kumar.rangarajalu@avmc.edu.in](mailto:kumar.rangarajalu@avmc.edu.in)

4  
Points

CME credit hours will be awarded by Tamilnadu Medical Council & CME credit points by Tamilnadu Dr. MGR Medical University

\*Applied

# PROGRAMME SCHEDULE

## Day-1

**Real time PCR or Standard PCR based early diagnosis of viral / bacterial / fungal diseases**

### Theory:

- Various methods of DNA/RNA purification – details & analysis
- Selection of techniques suitable for DNA/RNA purification
- Preparing your own DNA/RNA purification buffers
- Real time PCR – Programming
- Various assay and their usefulness [SYBR, Taqman, Molecular beacons, etc.,]
- Primer & Probe designing concepts
- Endogenous control – methods & details
- Internal control – methods & details
- Choosing right PCR master mix & their compositions
- Interpretation of Real time PCR results

### Wet lab:

- MTB DNA/Genomic DNA purification
- Setting up Taqman Real-time PCR & its consumables
- Real-time PCR programming
- Interpretation & Trouble shooting

## Day-2

**Human [SNP] Single nucleotide Polymorphism detection**

### Theory:

- SNP Selection / fundamentals with Database
- Designing ARMS Primer / RFLP based Primer / Real-time PCR
- Real-time PCR amplification & Optimisation
- Homozygous / Heterozygous controls
- Scatter Plot analysis

### Wet lab:

- Genomic DNA purification from whole human blood
- Human gene – Real-time PCR Programming
- Scatter Plot analysis – Homozygous / heterozygous

## Contact

**Dr. Sambandam Ravikumar**  
Principal Scientist  
Multi-disciplinary Center for Biomedical Research,  
Aarupadai Veedu Medical college and Hospital  
Pondy- Cuddalore Main Road, Kirumampakkam, Puducherry 607 403  
E-mail: [ravikumar.sambandam@avmc.edu.in](mailto:ravikumar.sambandam@avmc.edu.in)  
Mobile: 8754764770