



Faculty Development Program



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Discussion Points

Title : PRECLINICAL RESEARCH

Date : 2024-05-06 - 2024-05-10

Time : 10:00 - 17:30

**Venue : AMBEDKAR AUDITORIUM,
TECHNOLOGY TOWERS**

- May 06 - FN theory - Principles of surgery by Dr. Sajan & Rodent anesthesia by Prof. Sivakumar
- May 06 - AN practical - General, local anesthesia & rodent surgery by Dr. Imiyarasi, CMC, Vellore
- May 07 - FN theory - Large animal models in biomedical research by Dr. Imiyarasi, CMC, Vellore
- May 07 - AN practical - Bio-imaging by Mr. Jaganathan & Regulatory affairs by Prof. Pragasam, VIT
- May 08 - FN theory - Production of polyclonal & monoclonal Antibodies by Prof. Jayaprakash, VIT
- May 08 - AN practical - Euthanasia and necropsy of laboratory animals by Dr. Jalantha, TANUVAS
- May 09 - FN theory - Experimental design & sample size estimation by Dr. Srinivasan, TANUVAS
- May 09 - AN practical - Dosing & administration of drugs to lab animals by Dr. Sankar, TANUVAS
- May 10 - FN theory - Animal models in preclinical research by Dr. Shakthi Devan, Syngene, Biocon
- May 10 - AN theory - Advances in laboratory animal science by Prof. Muthukumar, CFTRI, Mysore

	<p>Resource Person 1 - Details Name : Sivakumar A Designation : Professor Grade 1, School of Bio Sciences and Technology University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 2 - Details Name : Sajan George Designation : Assistant Professor Sr. Grade 2, VIT School of Agricultural Innovations and Advanced Learning University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 3 - Details Name : Dr K Imiyarasi Designation : Veterinary Officer, Laboratory animal facility University/ Company : Christian Medical College, Vellore Address : India, 632004.</p>
	<p>Resource Person 4 - Details Name : Dr P Jalandha Designation : Assistant Professor, Laboratory Animal Medicine Unit University/ Company : TN Veterinary and Animal Sciences University, Chennai Address : India, 600051.</p>
	<p>Resource Person 5 - Details Name : Dr R K Shakthi Devan Designation : Senior Lead Scientist , Veterinary sciences University/ Company : Syngene International Ltd, Bangalore Address : India, 560099.</p>
	<p>Resource Person 6 - Details Name : Prof MUTHUKUMAR S P Designation : Chief Scientist Professor, Department of Biochemistry University/ Company : CSIR Central Food Technological Research Institute, Mysuru Address : India, 570020.</p>
	<p>Resource Person 7 - Details Name : Dr P Sankar Designation : Assistant Professor, Department of Veterinary Pharmacology and Toxicology University/ Company : Veterinary College and Research Institute, Nammakkal Address : India, 637002.</p>
	<p>Resource Person 8 - Details Name : Pragasam V Designation : Professor Higher Academic Grade, School of Bio Sciences and Technology University/ Company : VIT, Vellore Address : India, 632014.</p>

**Resource Person 8 - Details****Name :** Pragasam V**Designation :** Professor Higher Academic Grade, School of Bio Sciences and Technology**University/ Company :** VIT, Vellore**Address :** India, 632014.**Resource Person 9 - Details****Name :** Jayaprakash N S**Designation :** Professor Grade 1, Centre for Bio-Separation and Technology**University/ Company :** VIT, Vellore**Address :** India, 632014.**Resource Person 10 - Details****Name :** Dr M R Srinivasan**Designation :** Veterinary Pharmacologist and Toxicologist, Laboratory Animal Unit**University/ Company :** TN Veterinary and Animal sciences University, Chennai**Address :** India, 600051.

Resource Person's Profile :

1. Profile of Sivakumar A

Prof. Sivakumar is working on structural activity relationship aspects of natural and synthetic compounds against various molecular targets. He is skilled in in silico molecular modelling, molecular pharmacology, conducting various in vitro and in vivo studies. He explores the structural activity relationship of quinolone-based lead molecules for treating inflammatory related disorders such as cancer. He has several publications and has the credit of one granted patent.

2. Profile of Sajan George

Dr. Sajan George is the veterinary officer in Animal House, VIT. He is interested in the lipidomics of Mycobacterium paratuberculosis. He had identified the growth promoter effect of feedlot antibiotics in weanling piglets. He had conducted preclinical trials of antifungals in dogs. He had differentiated human stem cells to neurons using photobiomodulation. Other areas of his interest are cancer and stem cells. He has more than 20 publications.

3. Profile of Dr K Imiyarasi

Dr. Imiyarasi has over 10 research papers published in peer-reviewed journals and 05 invited lectures, she actively contributes to the field. She has participated in LASA conferences and currently oversees two ongoing large animal research projects. She holds a PG Diploma in Animal Reproductive Biotechnology from TANUVAS. She is currently pursuing a PG Diploma in Animal Welfare from IGNOU University. She serves as a scientific and technical expert in all animal research projects at CMC.

4. Profile of Dr P Jalantha

Dr. P. Jalantha graduated as a veterinary pathologist from the Madras Veterinary College with Dr. Manju Sharma Award for the best MVSc student in Pathology in 2012. She has also bagged RVC Maj. Gen, R.K.R. Balasubramanian award and rolling cup for the best overall performance in NCC, academic and extracurricular activities for the year 2008. She has completed FELASA accredited 'Certificate Course in Laboratory Animal Science'. She works on mammary tumors, pathological effect of mycotoxins etc.

5. Profile of Dr R K Shakthi Devan

Dr R K Shakthi Devan is the Senior Lead Scientist, Head of Veterinary Sciences and Comparative Medicine overseeing the vivarium operations and AAALAC program as Attending Veterinarian at Syngene International Ltd, Bangalore. He has started his career as Toxicologist (Regulatory) at IIBAT, thereafter, Discovery Toxicology (BBRC) and Veterinary Sciences operations at Syngene, where actively involved in laboratory animal care and management aspects for two decades. He has several publications.

6. Profile of Prof MUTHUKUMAR S P

Prof. Muthukumar is a veterinarian with specialization in Biochemistry, Nutrition, Breeding and Genetics. He has more than 70 research papers in peer reviewed SCI-indexed journals, 60 invited lectures and presented more than 90 papers in national and international conferences. He completed 20 projects and ongoing 5 research projects. At present, he has two Post-Doctoral and 7 PhD scholars under his guidance in the area biotechnology, biochemistry, food science and nutrition.

7. Profile of Dr P Sankar

Dr. P. Sankar is Assistant Professor, Department of Veterinary Pharmacology and Toxicology, Veterinary College and Research Institute, Namakkal. He had identified the ameliorating effect of phytomolecules against pesticides and heavy metals in rats. He has prepared nanoparticle encapsulated phytomolecules and their pharmacokinetics and pharmacodynamics were evaluated. His interest areas are xenobiotics drug interaction, nano drug delivery and pharmacology. He has more than 25 publications.

8. Profile of Pragasam V

Prof. Pragasam V., is a Professor HAG in the Department of BioSciences, School of BioSciences and Technology, VIT, and Vellore. He has served as dean of the School of BioSciences and Technology and completed his doctoral and post-doctoral fellowship with Dr. ALM PGIBMS, University of Madras and Medical College of Wisconsin, Milwaukee, US. He has more than 16 years of teaching and research experience. So far, He has guided 14 research students and six students currently doing PhD under him.

9. Profile of Jayaprakash N S

Prof. Jayaprakash did his PhD from CUSAT, Cochin and post doc in University of Technology Compiègne, France. He has more than 40 publications and one patent. He has obtained research project funding from various government organizations like, DBT, DST and ICMR and also from industries. He has developed antibodies to antigens like malarial HRP2 and HRP3, OMPs of Brucella and Salmonella, peptides of COVID19, Mycobacterium, Apo A1, Fungal lectin etc. He is now improving the yield of MAbs.

10. Profile of Dr M R Srinivasan

Dr M R Srinivasan is a Veterinary Pharmacologist and Toxicologist who is also a Diplomate of the American Board of Toxicology and a European Registered Toxicologist. He has 11 years of R and D experience in new drug discovery in leading pharmaceutical industries in India and has been a faculty member at TANUVAS since 2012. His research focuses on toxicology, safety pharmacology, drug delivery and laboratory animal science. He has published over 12 papers, with an h-index of 6.

This FDP is unique as it involves theoretical sessions as well as hands-on training for the participants by the subject experts in the VIT campus. All sessions are mentored by professionals in the laboratory animal research who have several years of experience in conducting in vivo investigations using the latest tools and methods. The overall objective is to train faculty members and scholars of VIT on the proper care and scientific use of laboratory animals. You are cordially invited to participate in this FDP on the use of laboratory animals for biomedical research provided you have taken TETANUS TOXOID vaccination (available at VIT campus clinic) within a year.

The School of Bio Sciences and Technology (SBST), Vellore Institute of Technology (VIT) has a laboratory animal facility functioning according to the Committee for the Control and Supervision of Experiments on Animals (CCSEA) guidelines. Housing of laboratory animals and the research activities performed on them are strictly monitored by the Institutional Animal Ethics Committee (IAEC), constituted by the CCSEA. **THIS FDP CERTIFICATE IS MANDATORY FOR PERFORMING ANIMAL EXPERIMENTATIONS.**

Animal handling, Drug administration, Sample collection, In vivo imaging, G power analysis

**Coordinator's: Prof. SAJAN GEORGE 16698 - Assistant Professor Sr. Grade 2 - VAIAL
Prof. SIVAKUMAR A 10757 - Professor Grade 1 - SBST**