

COURSE ON THE ROLE OF NANO-NUTRACEUTICALS IN TISSUE REGENERATION



MINISTRY OF HUMAN RESOURCE DEVELOPMENT, GOVT. OF INDIA
 GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)

UNIVERSITY OF KERALA, DEPARTMENT OF ZOOLOGY

December 14th - 18th, 2020

Overview

GIAN course in University of Kerala is designed to enable the participants to make an overview about the Nano-nutraceuticals in Tissue Regeneration. Nutraceuticals are a unique product category that more than food but less than pharmaceuticals. In the conventional mode of delivery of nutraceuticals, a portion of the administered nutraceutical is absorbed and reaches the actual pharmacological site of action whereas the remainder portion is either excreted or instigates non-specific toxicity and adverse side effects owing to undesirable bio-distribution.

To overcome these problems, principles of nanotechnology have been used for the efficient delivery of nutraceuticals with the development of nano-nutraceuticals. Nano-nutraceuticals are the standardized and characterised bioactive compounds in regulation of stem cell function, disease prevention, skin penetration and tissue regeneration. This course provides a better platform to understand the importance of Nutraceuticals in human health.

Course Details

Dec 14 th	Lecture 1. Nutraceuticals and their importance in health
	Lecture 2. Nutraceuticals and Pharmaceuticals
	Tutorial 1. Categories of nutraceuticals
Dec 15 th	Lecture 3. Nutraceuticals as therapeutic agents
	Lecture 4. Nutraceuticals and nanotechnology
	Tutorial 2. Nano-nutraceuticals, Application of nano-nutraceuticals in medicine
Dec 16 th	Lecture 5. Tissue regeneration-an overview
	Lecture 6. Tissue repair to tissue regeneration
	Tutorial 3. New technologies in tissue regeneration
Dec 17 th	Lecture 7. Nano-nutraceuticals in tissue regeneration
	Lecture 8. Advantages of nano technology in tissue regeneration
	Tutorial 4. Nanotechnology; application, challenges and prospects
Dec 18 th	Lecture 9. Nanotechnology in drug delivery
	Lecture 10. Nanomaterials for medical applications; Benefits & Risks

The Faculty



Dr. Murali Mohan Yallapu Ph.D., in Polymer Science & Technology, Associate Professor at the Department of Immunology and Microbiology, School of Medicine, University of Texas Rio Grande Valley, Edinburg/McAllen, TX, USA. He is also Member of South Texas Center of Excellence in Cancer Research. He completed his Postdoctoral Training and Junior Faculty Position at The Gwangju Institute of Science & Technology (Gwangju), South Korea, University of Nebraska Medical Center (Omaha, NE), Cleveland Clinic (Cleveland, OH), Sanford Research/USD (Sioux Falls, SD), and University of Tennessee Health Science Center (Memphis, TN), United States, respectively. Dr. Yallapu has been involved in multiple Federal and Fellowship grants as a PI and Co-Investigator. His research efforts have produced valuable publications 125 research/review articles, 8 book chapters, and more than 85 posters and 12 invited presentations. Dr. Yallapu Lab's research goal is primarily to study the fate of drug nanoformulations that leads to novel insights into various biological factors and properties responsible for effective and targeted delivery. At the translational front, his work focuses on the identification of novel treatment strategies, designing of anti-tumour drug formulations for improving target-ability and efficiency; developing novel multi-functional self-assembling polymer materials.

The Co-ordinator



Dr. Sreejith. P Research area includes Cutaneous, Cancer and Ayurveda Biology. He attended the Post Doctoral Fellowship at Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, USA and has worked on Primary Cicatricial Alopecia at Dermatology Department, Case Western Reserve University, USA. He has been completed short term fellowship from University of Illinois College of Medicine at Peoria, Chicago. He had been FLAIR International Fellow and attended internship and academic staff training programme at University of Roehampton, London in conjunction with FLAIR programme Kerala. He is a DHR fellow and completed the fellowship in the University of Manchester, UK

Total number of Participants: **25** : Industry/ Research Organizations:
 The participation fees for taking : All modules: **Rs. 5000/-**
 the course is as follows: : Academic Institutions: **Rs. 4500/-**
 Participants from abroad: **USD 300** : Students: **Rs. 3500/-**

For Course Details Contact.

Dr. Sreejith Parameswara Panicker, PGSDC, Ph.D.
 Assistant Professor, Dept. of Zoology, University of Kerala, Thiruvananthapuram-695 581
 Mob: +919496793794, E-mail ID: p.sreejith@gmail.com, psreejith@keralauniversity.ac.in