Dr. Vinoth Kumar Lakshmanan
Associate Professor of Prostate Cancer Biology
Faculty of Clinical Research

ORCID: 0000-0002-7420-8459
Scopus ID: 37070851300
Google Scholar: Vinoth Kumar Lakshmanan
Email: vinoth.Lakshmanan@sriramachandra.edu.in

PhD/Post Doc supervision slots available: 5

Personal Profile

Dr. Vinoth-Kumar Lakshmanan is a Principal Investigator and Associate Professor for Prostate Cancer Biomarker Laboratory, Faculty of Clinical Research at Sri Ramachandra Institute of Higher Education and Research (DU), India and Adjunct Professor of Nicole Steinmetz Fellow and Group Leader at Institute of Advanced Materials, IAAM, Sweden. He obtained Ph.D from Louis Pasteur University, France, Post Doctoral from University of Regensburg and Karlsruhe Institute of Technology (KIT), Germany. After post -PhD cumulating 18 years international faculty experiences from Medical Universities Amrita, Chonnam, Gulf and achieved Scientific H Index 32. He also gained research experience from the International Centre for Genetic Engineering and Biotechnology (ICGEB) India, a United Nations Industrial Development Organization (UNIDO). Currently, he serves as Chief Scientific Advisor for Delta Botanicals and Research Limited. He published dozens of publications and multiple patents (USA, Global and India) and he does serve reviewers for many international peer reviewed journals and editorial board members for Nature Scientific Reports. He is a recipient of Association pour de la researche de cancer French fellowship and Life member of Indian association of Cancer research. He is a recipient of the Department of Science and Technology fast track scientist investigator award and Core Research Grant (CRG).

Research Interests

He engaged in identifying good biomarkers for cancer and this led him to determine the role of secretory protein in prostate cancer, how they might contribute to metastasis. He also studied loss and gain of function using inducible strategy in the cell lines. The goal is to develop a mouse metastatic xeno-graft model in which he could see a tumor affecting the organ in which cancer could be studied. His research interests include the biological studies of Cancers especially Prostate, Nano Drug delivery and development of xenograft and Knock out animal models for understanding cancer progression. Moreover, he is also interested in medical implant products with biodegradable, Non-toxic, bioresorbable and low cost. In addition, he does clinical trials for Prostametrix devices and understands the role of urinary biomarkers for early prostate cancer detection.

Prostate Cancer Biology lab

Our laboratory mainly focused on early detection urinary biomarkers, Nanomedicines and and Immunotherapy (CART). Recent advances in Prostate Cancer nanomedicine have attracted remarkable attention in medical sectors. Pharmacologic research on has increased dramatically in the past decades. The success stories of nanomedicines in the clinical field include the fabrication, maximize loading efficiency, sustain release to the Prostate cancer site and minimal toxicity to healthy cells. Our laboratory goals is to explore nanomedicines and CART therapeutics for better quality of patient life and longevity.

Lab Members

Jonathan Yeswanth Daniel (PhD Student): Focuses on Nanomedicine for Prostate Cancer therapeutics

Phd and internship opportunities in Prostate Cancer Biomarker laboratory are available.

Selected Publications

1. Gulzar Ahmed Rather, Preethi Selvakumar, K.Sathish Srinivas, K.Natarajan, Ajeet Kaushik, Prabhakar Rajan, Seugn-Rock Lee, Wong Ling S ng, Mohammad Alkhamees, Sen Lian, Merrel Holley,Young Do Jung, Vinoth-Kumar Lakshmanan* Facile synthesis of elastin nanogels encapsulated decursin for castrated resistance prostate cancer therapy. Sci Rep. 2024 Jul 2;14(1):15095.
2. Saravanan Ramesh, Preethi Selvakumar, Mohamed Yazeer Ameer, Sen Lian, Young Do Jung, Salem Chouaib, Abdulqadir Ismail M. Abdullah Alzarooni, Anshuman Mishra, Ashutosh Tiwari, and **Vinoth-Kumar Lakshmanan*** State-of-the art therapeutic strategies for targeting cancer stem cells in prostate cancer ***Front Oncol.*** 2023 Mar 9;13:1059441.
3. **Vinoth-Kumar Lakshmanan*,** Mahesh Desai New Insights on the early prostate cancer diagnosis in a real world setting. ***Investigative Clinical Urology*** 2022 May;63(3):248-250.
4. **Vinoth-Kumar Lakshmanan***, Shlok Jindal, Packirisamy G, Ojha S, Lian S, Kaushik A, Alzarooni AIMA, Metwally YAF, Thyagarajan SP, Do Jung Y, Salem Chouaib*****. Nanomedicine based Cancer Immuntherapy: Recent Trends and Future perspectives. ***Cancer Gene Therapy*** 2021 Feb 8.
5. **Vinoth-Kumar Lakshmanan *** Shreesh ojha, Young Do Jung. Role of Precision medicine in the diagnosis, prognosis, and treatment of Prostate Cancer. ***Computers in Biology and Medicine*** 2020,126, 104020