

## Dr. Vijayalakshmi. J

Assoicate Professor (Human Genetics)

Faculty of Biomedical Sciences and Technology

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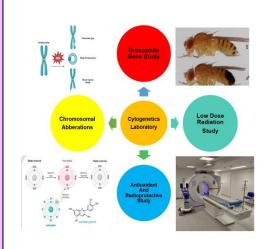
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Ph.D../Post Doc supervision slots available

#### **Personal Profile:**

Clinical Cytogeneticist with 23 years of experience and has a distinguished career in research and teaching, particularly in the areas of Radiation Biology and have conducted ground-breaking research in chromosomal aberrations and radiation response. My research journey began with a strong focus on cytogenetics, which has led to contribute significantly towards several high-impact projects, both as a Principal Investigator and Co-Investigator. Throughout my career, I have been actively involved in research, publishing articles and contributing to advancements in the field of Genetics. I have successfully completed projects funded by DRDO, Delhi and currently working on a project funded by DAE-BRNS, in collaboration with RPAD, Mumbai.

I am Associate Professor at the department of Human Genetics, involved in teaching Undergraduates, Post graduates and internship students. Also, a part of genetics diagnostic team with technical expertise on Cytogenetics. I have trained academician and students on karyotyping. My research domain is on Clinical Cytogenetics, Biodosimetry and Reproductive Genetics.



#### **Research Interests:**

Our research interests encompass several critical areas within radiation biology. We investigate the biological effects of ionizing radiation, aiming to understand the underlying mechanisms of radiationinduced damage. In the field biodosimetry, we focus on manual and automated techniques to accurately measure radiation exposure and assess biological responses, which is crucial for effective triage and treatment radiological emergencies. Additionally, we explore the potential of plant extracts as radioprotective agents, evaluating their efficacy in mitigating radiation-induced damage through in-vitro and in-vivo studies. Our work also extends to examining the adverse effects radiological procedures, such as diagnostic imaging and radiotherapy, on biological tissues, with a goal of improving safety protocols and minimizing harm to patients and healthcare workers. Through these diverse research endeavors, we aim to contribute to the advancement of radiation protection and therapeutic strategies.

### The Cytogenetics lab

Our laboratory is unwavering in its commitment to upholding the highest ethical standards in research and data collection. We prioritize accuracy and transparency in all our experimental procedures and data analyses. By employing robust methodologies and techniques, we ensure the reliability of our results. We strictly adhere to safety protocols and Institutional Ethical guidelines, maintaining the integrity in reporting our findings. We encourage continuous learning and professional development among our team members and will maintain the credibility and trustworthiness of our research, thus contributing correctly to the advancement of scientific knowledge.

# **Lab Members**

Lekha Priya T., (Ph.D., Student): Lekha is working in the field of effect of plant extracts as radioprotectors.

Chandra Lekha A.S. (Ph.D., student): Chandra is working in the field of radiation effects on PBL induced by radiological procedures.

Ph.D., and internship opportunities in Chemo/protective efficacy of antioxidant and Reproductive medicine.