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Research Gate:

https://www.researchgate.net/profile/Venkatachalam_Perumal2

Vidwan: <https://vidwan.inflibnet.ac.in/profile/161550>

PhD/Post Doc supervision slots available at present: 0

PERSONAL PROFILE

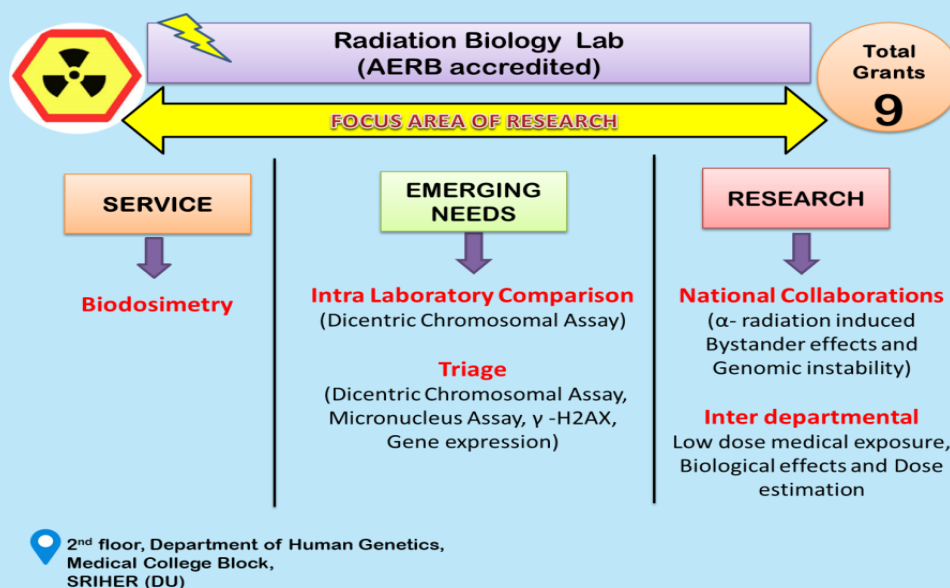
Radiobiologist with more than three decades of experience, my primary research interest is to relate chromosome aberrations and mutations in the human genome into radiation biodosimetry and clinical genetic diagnosis. Contribution from our lab along with national laboratories collaborations resulted in the sustenance of Atomic Energy Regulatory Board accreditation to the Department of Human Genetics, Sri Ramachandra Institute of Higher Education and Research (DU) and currently under NABL. My field expertise along with trained research personnel's from our lab and networking proficiency among national /international laboratories certainly would be of great assistance to manage exposed population in the event of a radiation emergency.

Currently as the Professor and Head, in the Human Genetics department I oversee functioning of Academics and Diagnostic services offered. Also as Associate Dean (Research) I am assisting the Dean Research for functioning of the Dean's research Office administration and Ph.D Admission. I am also a part of CEFTe, a GLP certified preclinical facility as Deputy Test Facility Management, Academic Counsel-Member, BOS for Research- SRIHER, BOS-Biomedical Sciences & Technology, SRIHER.

RESEARCH INTERESTS

My research areas majorly involve Non-DNA targeted effects of ionizing radiation and Low-dose radiation exposure. These include biodosimetry, health effects low dose/low dose rate ionizing radiation, high LET radiation biology, adaptive response and bystander effects.

The above are highly vital areas to understand the health impact of exposure to the double edged sword "radiation"



LAB MEMBERS

Aishwarya S (PhD Research Scholar) (Orchid ID: 0009-0000-2922-3871)	Validating mini Dicentric chromosome aberration as cost- effective method for biodosimetry
Aishwarya T A (PhD Research Scholar) (Orchid ID: 0000-0001-7818-3386)	Radiation-Induced Adaptive Response and its implications on Cancer Radiation Therapy
Divya K Mohan (PhD Research Scholar) (Orchid ID: 0000-0001-8283-6343)	Physical dose distribution and DNA damages in children upon exposure to X-radiation from computed tomography
Nandhini K (PhD Research Scholar) (Orchid ID: 0000-0002-6066-1826)	Gene Expression Biomarker for Rapid Triage of Radiation Exposed Population
Rahul Kabir (PhD Research Scholar) (Orchid ID: 0009-0009-8111-2824)	Radiation Sensitivity in directly Irradiated and Bystander Normal and Cancer cells



PROJECTS-

Ongoing:

1. BRNS, 2024- 2027 (3 years)

“Chromosomal Sensitivity in directly Irradiated and Bystander Normal and Cancer cells after Low and High LET Irradiation with implications for prospective therapy induced delayed health effects”

2. SPARC, 2024- 2026 (2 years)

“A Tiered Biodosimetry Approach for management of Large Scale Radiological and Nuclear Emergencies”

Recent Publications:

1. Hariharan S, Smruthi Seethashankar, Kannan N, et al. Enhanced γ -H2AX Foci Frequency and Altered Gene Expression in Participants Exposed to Ionizing Radiation During I-131 Nuclear Medicine Procedures. *Nuclear Medicine and Molecular Imaging*. Published online July 12, 2024. doi:<https://doi.org/10.1007/s13139-024-00872-3>
2. Tamizh Selvan G, Venkatachalam P. Ataxia Telengectesia Protein Influences Bleomycin-Induced DNA Damage in Human Fibroblast Cells. *Cell Biochemistry and Biophysics*. Published online May 2, 2024. doi:<https://doi.org/10.1007/s12013-024-01275-z>
3. Kannan N, Koshy T, Raavi V, et al. Candidate Gene Expression in Regional Population and Its Relevance for Radiation Triage. *Cytogenetic and Genome Research*. 2023;163(3-4):210-222. doi:<https://doi.org/10.1159/000531258>
4. Thathamangalam Ananthanarayanan A, Raavi V, Srinivas Kondaveeti S, Ramachandran I, Perumal V. Insights on the Radiation-Induced Adaptive Response at the Cellular Level and Its Implications in Cancer Therapy. *Cytogenetic and Genome Research*. 2023;163(5-6):257-273. doi:<https://doi.org/10.1159/000534500>
5. Géraldine Gonon, Sonia, Perumal V, Jean-Paul Jay-Gerin, Azzam EI. Impact of the redox environment on propagation of radiation bystander effects: The modulating effect of oxidative metabolism and oxygen partial pressure. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*. 2022;883-884:503559-503559. doi:<https://doi.org/10.1016/j.mrgentox.2022.503559>