Name: Dr. Rajesh Kumar G.

Degree: M.Sc., PhD

Designation: Professor- Department of Human Genetics

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Area of Research Expertise with Projects conducted:

Cancer biology, inflammation, oxidative stress signaling and plasma medicine

Awards:

Awarded First place in the SRIIC MEDTECH HACKATHON-2022 organized from 21st to 25th February 2022 at Sri Ramachandra Innovation Incubation Centre.

Workshop, training undergone by faculty:

1. MaxQunat Summer School 2015, Munich, Germany. June 29th- July 3rd. Workshop on mass spectrometry in cell biology
2. Project management workshop, Berlin, Germany July 2019.

List of Publications (RECENT THREE YEARS):

1. Gandhirajan RK, Meyer D, Sagwal SK, Weltmann KD, von Woedtke T, Bekeschus S. The amino acid metabolism is essential for evading physical plasma-induced tumour cell death. British journal of cancer. 2021 May;124(11):1854-63.

2. Gandhirajan RK, Endlich N, Bekeschus S. Zebrafish larvae as a toxicity model in plasma medicine. Plasma Processes and Polymers. 2021 Mar;18(3):2000188. https://doi.org/10.1002/ppap.202000188

3. Pasqual-Melo G, Sagwal SK, Freund E, Gandhirajan RK, Frey B, von Woedtke T, Gaipl U, Bekeschus S. Combination of gas plasma and radiotherapy has immunostimulatory potential and additive toxicity in murine melanoma cells in vitro. International Journal of Molecular Sciences. 2020 Jan;21(4):1379. Doi. 10.3390/ijms21041379

4. Pasqual-Melo G, Nascimento T, Sanches LJ, Blegniski FP, Bianchi JK, Sagwal SK, Berner J, Schmidt A, Emmert S, Weltmann KD, von Woedtke T. Plasma treatment limits cutaneous squamous cell carcinoma development in vitro and in vivo. Cancers. 2020 Jul;12(7):1993. Doi. 10.3390/cancers12071993

5. Bekeschus S, Eisenmann S, Sagwal SK, Bodnar Y, Moritz J, Poschkamp B, Stoffels I, Emmert S, Madesh M, Weltmann KD, von Woedtke T, Gandhirajan RK. xCT (SLC7A11) expression confers intrinsic resistance to physical plasma treatment in tumor cells. Redox biology. 2020 Feb 1;30:101423. https://doi.org/10.1016/j.redox.2019.101423

6. Bekeschus S, Clemen R, Haralambiev L, Niessner F, Grabarczyk P, Weltmann KD, Menz J, Stope M, von Woedtke T, Gandhirajan R, Schmidt A. The plasma-induced leukemia cell death is dictated by the ros chemistry and the ho-1/cxcl8 axis. IEEE Transactions on Radiation and Plasma Medical Sciences. 2020 Sep 2;5(3):398-411. DOI**:** 10.1109/TRPMS.2020.3020686

7. Rödder K, Moritz J, Miller V, Weltmann KD, Metelmann HR, Gandhirajan R, Bekeschus S. Activation of murine immune cells upon co-culture with plasma-treated B16F10 melanoma cells. Applied Sciences. 2019 Jan;9(4):660. https://doi.org/10.3390/app9040660

Professional IDs/Weblinks:

1. Google scholar: https://scholar.google.com/citations?user=2vOCJ34AAAAJ&hl=en&authuser=2
2. ORCID: Rajesh Gandhirajan (0000-0002-0039-771X) (orcid.org)