




जवाहरलाल नेहरू विश्वविद्यालय
JAWAHARLAL NEHRU UNIVERSITY
नई दिल्ली - ११००६७
NEW DELHI - 110067

The results of the research work entitled "Silibinin Radiosensitizes EGF Receptor-knockdown Prostate Cancer Cells by Attenuating DNA Repair Pathways" showed that targeting EGFR signaling along with the administration of silibinin to radioresistant prostate cancer cells would be a better strategy for improving the radiotherapeutic index in clinical settings. Here we report the unique molecular changes brought on by the radiosensitizing effects of low-dose silibinin on prostate cancer cells by focusing on the homologous recombination and non-homologous end joining pathways. Silibinin was found to be more effective in EGFR-deficient cells at reducing ionizing radiation-induced DNA repair through targeting Rad51 and DNA-PK and sensitizing the cells to death. It also inhibited pro-survival signalling pathways in prostate cancer cells, such as ERK1/2, Akt, and STAT3. This study suggested that the combination approach of targeting EGFR signaling along with the administration of silibinin in radioresistant prostate cancer cells would be an optimal way to improve radiation efficacy in clinical settings.

Therefore, based on her contribution in the above mentioned work, I nominate Deepali Mishra for the Sun Pharma Science Foundation Science Scholar Award.

 29/08/2023
Rana P Singh
Professor
School of Life Sciences
Jawaharlal Nehru University
New Delhi-110067, INDIA
Jawaharlal Nehru University