Deepali Mishra
Current address: Lab 332,
Laboratory of Cancer Biology,
School of Life Sciences,
Jawaharlal Nehru University, New Delhi, India
Phone no- +917838475595
Email- mishradeepali458@gmail.com

Educational Qualification

Qualification	Board/Institute	Year of passing	Percentage
Ph.D.	Under the supervision of Prof. Rana P. Singh, Laboratory of Cancer Biology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India	Ongoing	-
M.Sc. (Genetics)	Department of Genetics, University of Delhi South Campus, New Delhi, India	2019	72.875
B.Sc. (Zoology Honors)	Department of Zoology, Zakir Husain Delhi College, University of Delhi, New Delhi, India	2017	84.71
12th	Saint Ann College, Palia Kalan, Lakhimpur Kheri, Uttar Pradesh, India	2013	79.2
10th	Saint Ann College, Palia Kalan, Lakhimpur Kheri, Uttar Pradesh, India	2011	80.14

Research Experience

Study of phytochemicals as a potential modulator of radiation response in head and neck Cancer (Ph.D. synopsis title)

My research is mainly focused on delineating the mechanistic details of radioresistance in head and neck cancers and prostate cancers focusing on DNA damage responses and cancer stem cells that ultimately lead to increased cell survival and radioresistance. We are also exploring the radiosensitizing effect of the small molecules on head and neck cancer cells and prostate cancer cells targeting DNA repair pathways and stemness thereby modulating cell survival and radiation resistance and exploring the associated signaling targets with the ultimate goal of enhancing the therapeutic index.

We are also working on spheroids developed from the head and neck patient samples and these will be evaluated in combination with chemotherapeutic drugs/ radiation for the markers associated with radiation resistance.

To study the effect of 3-β Hydroxybutyrate on non-small cell lung cancer cell line A549, a dissertation project supervised by Dr. Tapasya Srivastava.

Peer-reviewed publications

1- Mohit Rajput[*], **Deepali Mishra[*],** Kunal Kumar, Rana P. Singh Silibinin radiosensitized EGF Receptor-knockdown prostate cancer cells by attenuating DNA repair pathways **Journal of Cancer Prevention (JCP)**
(*: Share co-first authorship)

2- Akash Sabarwal, Jaco C. van Rooyen, Jeremy Caburet, Moscos Avgenikos, Arpit Dheeraj, Mansoor Ali**, Deepali Mishra**, Joséphine S.B. de Meester, Saskia Stander, Willem A.L. van Otterlo, Catherine H. Kaschula, Rana P. Singh Novel 4'-brominated derivative of fisetin induces cell cycle arrest and apoptosis and inhibits EGFR/ERK1/2/STAT3 pathways in non-small-cell lung cancer without any adverse effects in mice **FASEB Journal**

3- Dhanya K. Nambiar, **Deepali Mishra** and Rana P. Singh. Targeting DNA Repair for Cancer Treatment: Lessons from PARP Inhibitor Trials **Oncology Research**

4- Mansoor Ali **Deepali Mishra** Cancer Pathways Targeted by Berberine: Role of microRNAs **Current Medicinal Chemistry** (under publication)

Technical expertise

Cell culture: I have developed in-depth knowledge of maintaining human cancer cell lines of head and neck, prostate and lung origin, cell seeding, freezing of cell lines, and cell splitting and ma.

***In vitro* studies:** Evaluation of cell proliferation by trypan blue staining, MTT assay, wound healing assay, migration and invasion assay, clonogenic assay cell cycle analysis, FITC/Annexin V, comet assay AO/EtBr assay, DNA fragmentation assay, and co-immunoprecipitation assay.

Cloning: Cloning, isolation, and digestion of genomic and plasmid DNA, quantification of DNA and RNA.

Protein analysis: Total protein extraction, protein extraction from cell/tissue, nuclear, cytosolic protein separation, SDS-PAGE, western blotting, zymography.

Gene analysis: DNA and RNA extraction, PCR (RT), Real-time PCR

Microscopy: Fluorescence and confocal microscopy.

Computer software and bioinformatics: bioinformatics tools for searching and retrieval of sequence, sequence analysis by BLAST, multiple sequence alignment (MSA), designing of primers, and homology modeling.

Basic understanding of the handling of laboratory animals including nude mice, patient-derived xenografts (PDX), and primary cell culture, culture, and imaging of spheroids from head and neck patient samples as well as from head and neck cancer cell lines.

Scholarships received

1- Qualified CSIR-UGC joint JRF (secured All India – **37 rank**), December 2019.
2- Qualified CSIR-lectureship (NET-LS), June 2019.
3- Received Monsanto post-graduate scholarship for securing 2nd position in 2nd and 3rd-semester M.Sc. examinations, Genetics Department, University of Delhi South Campus, New Delhi).
4- WBO Educational Scholarship

Poster presentation

Mohit Rajput, **Deepali Mishra#,** Kunal Kumar, Rana P. Singh **Silibinin radiosensitizes EGFR knockdown DU145 cells by modulating DNA damage repair pathways, Poster Presentation** at 15th International Symposium on Recent Trends in Cancer Prevention and Interception- Bench to Bedside 22-23 February 2022 (Offline-Virtual Meeting) School of Life Sciences & Special Centre for Systems Medicine Jawaharlal Nehru University, New Delhi, INDIA **(Awarded Best poster presentation award)**
Presenting author

Symposiums and conferences attended

1. Attended a hands-on workshop for handling and care of laboratory animals organized by School of life sciences, Jawaharlal Nehru University, New Delhi, India (**awarded a certificate of competence**).
2. Participated in International Symposium on Mitochondria, Cell Death and Human Diseases, Jawaharlal Nehru University, New Delhi, India. (Feb 18-17, 2023).
3. Participated in15th International Symposium on Recent Trends in Cancer Prevention and Interception: Bench to Bedside, Jawaharlal Nehru University, New Delhi, India. (Feb 22-23, 2022).

4. Attended 14th International Symposium on Cancer Prevention and Therapeutics, Jawaharlal Nehru University, New Delhi, India. (March 16-17, 2021).
5. Attended International Symposium on Cancer Prevention and Treatment, Jawaharlal Nehru University, New Delhi, India. (February 20-21, 2020).
6. Participation in a national symposium on "environmental contamination and publichealth" organized by Zakir Husain Delhi College, University of Delhi, New Delhi, India.

References:

Prof. Rana P. Singh

Professor
School of Life Sciences,
Jawaharlal Nehru University,
New Delhi, India

Email: ranaps@hotmail.com

Off. Phone: 011-26704503

Prof. Paulraj Rajamani

Professor

School of Environmental Sciences
Jawaharlal Nehru University,
New Delhi, India
Email paulrajr@mail.jnu.ac.in
Off. Phone**:** 011-26704162