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Designation		Professor				
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External links: https://www.researchgate.net/profile/Rinu-Sharma/research https://scholar.google.com/citations?hl=en&user=McQwB9MAAAAJ						
Educational Qualifications						
Degree		Institution			Year	
PhD		All India Institute of Medical Sciences, New Delhi			2004	
PG		All India Institute of Medical Sciences, New Delhi			1999	
UG		University of Delhi			1997	
Career Profile						
<p>2004-2007: Post-Doctoral Fellow, Department of Biochemistry, All India Institute of Medical sciences, New Delhi</p> <p>2007-2019: Assistant Professor, University School of Biotechnology, GGS Indraprastha University</p> <p>20019-2022: Associate Professor, University School of Biotechnology, GGS Indraprastha University</p> <p>2022-Till date: Professor, University School of Biotechnology, GGS Indraprastha University</p>						
Administrative Assignments in last three years						
<ul style="list-style-type: none"> • Member Secretary, IEC, GGSIPU • USBT coordinator for NIRF • USBT coordinator for NAAC • Member, NAAC Core Committee • Member, IIQAC, GGSIPU • Nodal officer, AICTE NDF program • Nodal officer (USBT) International Affairs (USS) • Academic Audit coordinator of USBT • Member, DST FIST Program Committee USBT • Ph.D. Program Coordinator (USBT) • ATC Lab Incharge (USBT) 						

- Examination USBT Coordinator

Areas of Interest / Specialization

Broad interest of our research group is to understand the molecular mechanism underlying esophageal carcinogenesis and develop strategies for early diagnosis and effective treatment of this disease.

Current Research Interest:

- Understanding mechanism underlying chemoresistance in esophageal cancer cells
- Identification of markers for predicting response to neoadjuvant therapy in esophageal cancer
- Unravelling the role of MARCH E3 ligases in esophageal carcinogenesis
- Role of non-coding RNAs (miRNAs and LncRNAs) in development and progression of esophageal cancer as well as chemoresistance
- Development of non-invasive tools for biomarker based early diagnosis of esophageal cancer and monitoring response to therapy

Subjects Taught

B.Tech. Biotechnology Program

- Animal Tissue Culture laboratory
- Immunology
- Food Biotechnology
- Biostatistics
- Foundation in Biology

M.Tech. Biotechnology Program

- Biotechnology in Healthcare
- Clinical immunology and Immunotechnology

Ph.D. Biotechnology Program

- Cancer Biology
- Research Methodology

Research Guidance

- Ph.D awarded: Two(02)
- Ph.D ongoing: Four (04)
- Research Associate: Two (02)
- M.Tech: Eight (08)
- B.Tech: More than 40

Publications Profile (Best ten publications)

- Damini Verma, Neha, Amit K Yadav, Anoop Saraya, **Rinu Sharma***, and Pratima R. Solanki*. Disposable Paper based Screen Printed Electrochemical Immunoplatforms for Dual Detection of Esophageal Cancer Biomarkers in Patients' Serum samples. **Materials Advances**. 2024, 5, 2153
- Arjumand Bano, Geetika Suyal, Anoop Saraya and **Rinu Sharma**. miR-335-5p Inhibits EMT and PI3K/AKT Pathways via MARCH8. **Indian Journal of Clinical Biochemistry**. Published online 08 Jan, 2024
- Pandey P, Suyal G, Aprajita, Pasbola K, **Sharma R**. NGS-based profiling identifies miRNAs and pathways dysregulated in cisplatin-resistant esophageal cancer cells. **Funct Integr Genomics**. 2023 Mar 30;23(2):111.
- Singh S, Bano A, Saraya A, Das P, **Sharma R**. Association of MARCH7 with tumor progression and T-cell infiltration in esophageal cancer. **Med Oncol**. 2022 Dec 30;40(1):67.

- Singh S, Bano A, Saraya A, Das P, **Sharma R**. iTRAQ-based analysis for the identification of MARCH8 target in human esophageal squamous cell carcinoma. **J Proteomics**. 2021 Mar 30;236:104125
- Sharma P and **Sharma R**. miR-144 functions as an oncomiR in KYSE-410 human esophageal carcinoma cell line in vitro and targets PURA. **Neoplasma**, 2018;65(4):542-551.
- Sharma P, Saraya A, **Sharma R**. Serum-based six-miRNA signature as a potential marker for EC diagnosis : Comparison with TCGA miRNAseq dataset and identification of miRNA-mRNA target pairs by integrated analysis of TCGA miRNAseq and RNAseq datasets. **Asia Pac J Clin Oncol**. 2018 Oct;14(5):e289-e301
- Singh S, Saraya A, Das P, **Sharma R**. Increased expression of MARCH8, an E3 ubiquitin ligase, is associated with growth of esophageal tumor. **Cancer Cell Int**. 2017 Dec 4;17:116.
- Sharma P, Saini N, Sharma R. miR-107 functions as a tumor suppressor in human esophageal squamous cell carcinoma and targets Cdc42. **Oncol Rep**. 2017 May;37(5):3116-3127.
- Prediction of recurrence free survival for esophageal cancer patients using a protein 2 signature based risk model. Md. Raghiful Hasan , Gunjan Srivastava , Akram Alyass, **Rinu Sharma** , Anoop Saraya , Tushar K. Chattopadhyay, Siddartha DattaGupta , Paul G. Walfish, Shyam S. Chauhan, Ranju Ralhan. **Oncotarget** 2016, July 18, PMID: 274475858.
- Shivam Singh, Anoop Saraya, **Rinu Sharma**. Increased levels of sperm protein 17 mRNA and circulating antibodies in periampullary carcinoma patients. **Int. J. Clin. Oncol**. 2015 Aug;20(4):736-44.
- Hasan R, **Sharma R**, Saraya A, Chattopadhyay TK, DattaGupta S, Walfish PG, Chauhan SS, Ralhan R. Mitogen activated protein kinase kinase kinase 3 (MAP3K3/MEKK3) overexpression is an early event in esophageal tumorigenesis and is a predictor of poor disease prognosis. **BMC Cancer**. 2014 Jan 2;14:2.
- Md.Raghiful Hasan, **Rinu Sharma**, Anoop Saraya, Tushar K. Chattopadhyay, Siddartha DattaGupta, and Ranju Ralhan. Slug is a predictor of poor prognosis in esophageal squamous cell carcinoma patients. **PLoS One**. 2013 Dec 18;8(12):e82846.
- Md. Raghiful Hasan, Shyam S. Chauhan, **Rinu Sharma***, Ranju Ralhan*. siRNA-mediated downregulation of TC21 sensitizes esophageal cancer cells to cisplatin. **World Journal of Gastroenterology**, 2012, Volume 18, Issue 31*Corresponding author.

Conference Organization/ Presentations (in the last three years)

International:

- Kiran Pasbola, Prerna Pandey, Anoop Saraya, N.R Dash, **Rinu Sharma**. Enhanced expression of LINC00662 in Esophageal cancer and its association with chemoresistance. **8th World Cancer Congress, 18th March to 20th March, 2024**, JNU Convention center, JNU, New Mehrauli Road, New Delhi-110067.
- Arjumand, Shivam Singh and **Rinu Sharma**. Knockdown of MARCH7 suppresses progression and invasion of esophageal cancer cells via regulation of epithelial to mesenchymal transition and modulates immune response. **EACR 2023 congress**, Turin, Italy. June 12-15 2023. (2023), Abstracts. *Mol Oncol*, 17: 1-597.

- Prerna Pandey, Kiran Pasbola and **Rinu Sharma**. Identification of potential miRNA biomarkers to predict development of chemoresistance in Esophageal Cancer patients. **APOCP11 conference on Cancer prevention**, 11th general Assembly meeting of APOCP, **8th – 10th December 2022, Kolkata, India**
- **R. Sharma**, P. Pandey, A. Srivastava, K. Pasbola, A.Saraya, N.R. Dash. 65-P MicroRNA profiles associated with response to neoadjuvant chemotherapy in esophageal cancer patients. **Molecular Analysis for Precision Oncology Congress 2022 Amsterdam Netherlands 14-16 October 2022**. Published in Annals of Oncology (2022) 33 (suppl_8): Ss1383-S1430.10.1016/annonc/annonc1095
- **Srivastava** and R. Sharma. 118-P In-silico analysis of fibroblast growth factor receptors (FGFRs) as potential biomarkers for esophageal carcinoma. **Molecular Analysis for Precision Oncology Congress 2022 Amsterdam Netherlands 14-16 October 2022**. Published in Annals of Oncology (2022) 33 (suppl_8): S1383 S1430.10.1016/annonc/annonc1095
- Aprajita, Aastha Kaushik and **Rinu Sharma**. In-silico Analysis to Identify Potential Inhibitors for Membrane Associated Ring-CH-Type Finger 8 Protein. **5th International Conference on Nutraceuticals and Chronic Diseases**, Department of Zoology, University of Delhi, Delhi, INDIA Under UGC-Special Assistance Program, Delhi University, **7th -9th October, 2022**
- Shubhi Gupta, Aprajita, **Rinu Sharma**. In-silico Analysis to Identify Differentially Expressed and Methylated Genes in Esophageal Squamous Cell Carcinoma: Search for Potential Biomarkers. **First International Conference on Technologies for Smart Green Connected Society 2021, 29 and 30 November 2021, Online, World Wide**
- Bani Preet Kaur, Aprajita, **Rinu Sharma**. Study on lncRNA-miRNA-mRNA interaction in Esophageal Squamous Cell Carcinoma. **First International Conference on Technologies for Smart Green Connected Society 2021, 29 and 30 November 2021, Online, World Wide**
- Aprajita and **Rinu Sharma**. Clinical Significance of Fibroblast Growth Factor Receptor Like 1 in Esophageal Cancer. **First International Conference on Technologies for Smart Green Connected Society 2021, 29 and 30 November 2021, Online, World Wide**
- Amit K Yadav, Damini Verma, **Rinu Sharma**, Alok Thakkar, Pratima R Solanki. Silane modified disposable ITO electrode-based biosensor for sperm protein 17 detection as a novel cancer biomarker **First International Conference on Technologies for Smart Green Connected Society 2021, 29 and 30 November 2021, Online, World Wide**
- Payal Gulati, Kiran Pasbola, Prerna Pandey, **Rinu Sharma**, Alok Thakkar, Pratima R Solanki. Electrochemical immunosensors fabrication for oral cancer detection in patient samples based on carbon based screen printed electrode. **First International Conference on Technologies for Smart Green Connected Society 2021, 29 and 30 November 2021, Online, World Wide**

National:

- Arjumand Bano, Shivam Singh, **Rinu Sharma**. Increased expression of MARCH8 in esophageal cancer and its association with antigen processing machinery components such as Calnexin. **41st ANNUAL CONFERENCE OF INDIAN ASSOCIATION FOR CANCER RESEARCH (IACR)**, “Combating Cancer : Biology to Therapy to Drug Resistance” Organized by Amity Institute of Molecular Medicine & Stem Cell Research (AIMMSCR) Amity University Uttar Pradesh, NOIDA, India **2nd to 5th March, 2022**
- Shivam Singh, Arjumand Bano, **Rinu Sharma**. Unravelling role of E3 ubiquitin ligase MARCH8 in esophageal cancer. **41st ANNUAL CONFERENCE OF INDIAN ASSOCIATION FOR CANCER RESEARCH (IACR)**, “Combating Cancer : Biology to Therapy to Drug Resistance” Organized by Amity Institute of Molecular Medicine & Stem Cell Research (AIMMSCR) Amity University Uttar Pradesh, NOIDA, India **2nd to 5th March, 2022**.
- Aprajita, Vaishali Kaushik and **Rinu Sharma**. FGFR Like-1 receptor in Esophageal Carcinoma: From Expression to Inhibition. **42nd Annual Conference of the Indian Association of Cancer Research**, Advanced Centre for Treatment Research & Education in Cancer(ACTREC), **Tata Memorial Centre, Navi Mumbai, India , January 12-16, 2023**.
- Rinu Sharma. Participated in **40th ANNUAL CONFERENCE OF INDIAN ASSOCIATION FOR CANCER RESEARCH (IACR)**, Organized by Institute of Life Sciences, Bhubaneswar 1st March, 2021

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Research Projects (Major Grants/Research Collaboration)

- 2023-26: SERB sanctioned project entitled “Transcriptome profiling to identify LncRNA-miRNA-mRNA regulatory axes involved in chemoresistance in esophageal cancer”
- 2022-2024: DST-BDTD sanctioned project entitled “Development of point of care device for identification of specific Oral Cancer”
- 2019-2020: DST sanctioned project entitled “Design and development of Nanomaterials based point of Care device for Head and Neck Cancer Biomarkers Detection”
- 2019-2022: ICMR sanctioned project entitled “Global miRNA expression profiling to predict response of esophageal carcinomas to neoadjuvanttherapy”
- 2019-2022: CSIR sanctioned project entitled “Understanding miRNA mediated regulation of chemoresistance in esophageal cancer”
- 2015-2018: DBT sanctioned project entitled “ Functional analysis and target identification of c-MIR/MARCHVIII (E3 ubiquitin ligase) in human esophageal cancer using RNAi and quantitative proteomics approach”
- 2012-2015: DST sanctioned project entitled “ Expression of Cancer Testis Antigens in Periampullary Carcinomas: Potential Noninvasive Biomarkers for Diagnosis/Prognosis”
- 2012-2015: UGC sanctioned project entitled “ Clinical Significance of Stem Cell Markers in Esophageal Cancer: Potential Blood Based Markers”
- 2010-2013: DBT sanctioned project entitled “ Circulating miRNAs in Esophageal Cancer Patients and Healthy Subjects: Potential Blood Based Biomarkers for Diagnosis and Prognosis”

Awards and Distinctions

- Outstanding Researcher Award GGSIPU-2024
- RAMNATH HIRALAL JAJU AWARD for the best oral presentation by mid-level scientist in 35th Annual Convention of Indian Association for Cancer Research (IACR) 2016.
- Best Poster Award : International Symposium on Recent Advances in Cancer Research: Therapeutics to Chemoprevention, Gandhinagar, 8th – 9th February, 2012.
- Sitaram Joglekar Award for best oral presentation by young scientist during XXIV Annual Convention of Indian Association for Cancer Research (IACR) 2005
- SCHOLAR OF THE YEAR AWARD – “Mata Prasad Award” B.Sc. (Hons.) Microbiology Part III awarded by Ram Lal Anand college 1997.
- GOLD MEDAL – 1st position in B.Sc. (Hons.) Microbiology awarded by University of Delhi 1997.
- Best Poster of The Day award: 9th Asian Pacific Federation of Clinical Biochemistry and 28th annual Conference of Association of Clinical Biochemists of India, March, 2002.
- Senior Research Fellowship from Council for Scientific and Industrial Research, Government of India.
- Junior Research Fellowship from Council of Scientific and Industrial Research, Government of India.
- Gate Examination cleared.

Association With Professional Bodies

- Active member, American Association of Cancer Research (AACR)
- Life member, Indian Association of Cancer Research (IACR)
- Member, European Society for Medical Oncology (ESMO)

