Pallavi Agarwal
Associate Professor & Ramalingaswami Fellow

Specialization: Cancer Biology, DNA Damage and Repair, Post-translational regulation, Epigenetics, Molecular Therapeutics and Skin fibrotic diseases
Email: pagarwal6@amity.edu

After completing her PhD degree from University of Cologne, Germany, Dr. Pallavi Agarwal pursued her postdoctoral research at Gurdon Institute, University of Cambridge, UK, where she investigated how small molecule inhibitors of epigenetic pathways could be targeted for cancer therapy. She showed methyltransferase G9a inhibitors as cancer therapeutic agents, which can act by potentiating the anti-tumor activity of DNA double strand break-inducing agents. During her international journey, she actively participated and delivered talks at various international conferences/meetings including EMBO meeting. She initiated collaboration with Scientists from USA, Sweden, Germany and UK to achieve research objectives. Her present research interest is to explore novel approaches for cancer therapy. Her research is specifically focused on how epigenetic pathways such as histone methylation/acetylation and chromatin regulatory proteins might aggravate or mitigate the platinum drug resistance in ovarian cancers and implicate this knowledge in developing new therapeutic approaches to alleviate chemoresistance in this life-threatening cancer. Her interest also lies in identifying new cancer drivers associated with gene amplification in ovarian cancers. Apart from her research, she is involved in teaching courses related to Cancer biology and Cellular Biology, Genetics, Microbiology and other courses.

Current Research Projects:

1. DBT-Ramalingaswami fellowship funded research project entitled "**Identifying new cancer drivers and exploring their transcriptional regulation in ovarian cancers to develop new therapeutic approaches".**
2. DBT funded research project entitled "**Understanding epigenetic regulation of chemoresistance pathways in ovarian cancers to develop new therapeutic approaches**".
3. DST funded research project entitled "**Dissecting epigenomics of high-grade serous ovarian cancers to identify new therapeutic targets**".

Honours and awards:

1. Postdoctoral research funded by Cancer Research UK, United Kingdom (2013-2016)
2. PhD research funded by German Research Foundation (DFG), Germany (2008-2012)
3. Certified patent agent registered to practice before Indian Patent Office (2006)
4. UGC/CSIR-NET qualified conducted by UGC-CSIR, India (2004)

Selected important Publications:

1. **Agarwal P**, and Jackson SP. **(2016)** G9a inhibition potentiates the anti-tumour activity of DNA double-strand break inducing agents by impairing DNA repair independent of p53 status. **Cancer Letters** 16;380 (2):467-475**. (IF – 6.37)**
2. **Agarwal P**, Schulz JN, Blumbach K, Heinegård D, Paulsson M, Mauch C, Eming C, Eckes B, Krieg T. **(2013)** Enhanced expression of cartilage oligomeric matrix protein is a common feature in fibrotic skin pathologies **Matrix Biology** 32:325–331**. (IF –7.4)**
3. **Agarwal P*,** Zwolanek D*, Keene DR, Schulz JN, Blumbach K, Heinegård D, Zaucke F, Paulsson M, Krieg T, Koch M, Eckes B. **(2012)** Collagen XII and XIV - new partners of cartilage oligomeric matrix protein in the skin extracellular matrix suprastructure, **Journal of Biological Chemistry** 287(27): 22549-59. **(IF – 4.12)**
4. **Agarwal P***, Moinzadeh P*, Bloch W, Poor L, Orteu C, Hunzelmann N, Eckes B and Krieg T. **(2013)** Systemic sclerosis with multiple nodules: characterization of the extracellular matrix, **Archives of Dermatological Research** 305:645–652**. (IF – 2.32)**