

Manoj Garg
Associate Professor & Ramalingaswami Fellow

Specialization: Cancer Biology & Genomics, Drug discovery, Signal Transduction,

Patient derived xenograft generation

Email: mgarg@amity.edu; nuscsimg@gmail.com

Dr. Manoj Garg obtained his Ph.D. from National Institute of Immunology/University of Rajasthan, Jaipur in 2010. After completing Ph.D., Dr. Garg moved to Cancer Science Institute (CSI), National University of Singapore (NUS), Singapore, where he focused his research on genomic abnormalities in leukemia and solid tumors using next-generation sequencing. He was also engaged in screening anti-cancer agents for the treatment of human malignancies. Dr. Garg has published several manuscripts in well-reputed international journals such as Nature Genetics, Blood, Leukemia, Scientific Reports, Clinical Cancer Research, Cancer Research, JCEM, EJC, AJC, Cancer, and oncotarget. In 2016, Dr. Garg was awarded the prestigious Ramalingaswami Fellowship by the Department of Biotechnology and joined Cancer Institute (WIA), Chennai as an Assistant Professor. His main area of research is Cancer Biology & Genomics and his recent focus is on acute myeloid leukemia and pancreatic carcinoma. He is examining how LAMC2 plays an important role in the pathogenesis of PDAC and to dissect the molecular pathways for the development of potential therapies that target LAMC2 in PDAC. He is also looking into the role of mixed lineage leukemia genes in the genesis of leukemia.

Current Research Projects:

- 1. Ramalingaswami Re-entry Fellowship funded by Department of Biotechnology for research project entitled "Role of Mixed lineage leukemia gene (MLL3) in acute myeloid leukemia".
- 2. SERB-DST funded research project entitled "Characterization of basement membrane protein, Laminin-5 gamma-2 (LAMC2) expression and its role in the progression and metastasis of pancreatic ductal adenocarcinoma (PDAC)".

Fellowships and Awards

- 1. Ramalingaswami Fellowship, Department of Biotechnology, Government of India (2016-2021).
- 2. Young Scientist Award at the International Conference ISSRF.
- 3. Excellence Award at X International Congress of Reproductive Immunology, in Opatija, Croatia.
- 4. Travel Grant from CSIR & DST.

Memberships

- Associate Member of the American Association for Cancer Research (AACR)
- Associate Member of Endocrinology Society

Selected important Publications:

- Garg M*, Kanojia D, Mayakonda A, Ganesan TS, Sadhanandhan B, Suresh S, S S, Nagare RP, Said JW, Doan NB, Ding LW, Baloglu E, Shacham S, Kauffman M, Koeffler HP. Selinexor (KPT-330) has antitumor activity against anaplastic thyroid carcinoma in vitro and in vivo and enhances sensitivity to doxorubicin. Scientific Reports 2017; 7(1):9749. Nature Publishing Group. Corresponding Author. [IF 4.25]
- 2. <u>Garg M</u>*, Nagata Y, Kanojia D, Mayakonda A, Yoshida K, Haridas Keloth S, Zang ZJ, Okuno Y, Shiraishi Y, Chiba K, Tanaka H, Miyano S, Ding LW, Alpermann T, Sun QY, Lin DC, Chien W, madan V, Liu LZ, Tan KT, Sampath A, Venkatesan S, Inokuchi K, Wakita S, Yamaguchi H, Chng WJ, Kham SK, Yeoh AE, Sanada M, Schiller J, Kreuzer KA, Kornblau SM, Kantarjian HM, Haferlach T, Lill M, Shih LY, Blau IW, Blau O, Yang H, Ogawa S, Koeffler HP. Profiling of somatic mutations in acute myeloid leukemia with FLT3-ITD at diagnosis and relapse. Blood 2015; 126(22):2491-501. Corresponding Author. [IF 13.16]
- 3. Lin DC, Hao JJ, Nagata Y, Xu L, Shang L, Meng X, Sato Y, Okuno Y, Varela AM, Ding LW, **Garg M,** Liu LZ, Yang H, Yin D, Shi ZZ, Jiang YY, Gu WY, Gong T, Zhang Y, Xu X, Kalid O, Shacham S, Ogawa S, Wang MR, Koeffler HP. Genomic and Molecular characterization of esophageal squamous cell carcinoma. **Nature Genetics 2014**; 46(5):467-73. **[IF 27.95]**.
- 4. Garg M*, Kanojia D, Okamoto R, Jain S, Madan V, Chien W, Sampath A, Ding LW, Xuan M, Said JW, Doan NB, Liu LZ, Yang H, Gery S, Braunstein GD, Koeffler HP. Laminin-5γ-2 (LAMC2) is highly expressed in anaplastic thyroid carcinoma and is associated with tumor progression, migration, and invasion by modulating signaling of EGFR. Journal of Clinical Endocrinology and Metabolism 2014; 99:E62-72. Corresponding Author. [IF 5.45].
- **5. Garg M**, Kanojia D, Khosla A, Dudha N, Chaurasiya D, Jagadish N, Seth A, Kumar R, Gupta S, Gupta A, Lohiya NK, Suri A. Sperm-Associated Antigen 9 is associated with tumor growth, migration, and invasion in renal cell carcinoma. **Cancer Research 2008**; 68 (20) 8240-8248. **[IF 9.32]**