Accomplishments

Dr. Deva Magendhra Rao. A. K.

I was awarded PhD in Genetics as a sandwich programme by the University of Madras, India and University of Naples, Federico II, Italy. With an extensive post-doctoral training in Molecular Genetics and RNA biology, I have been associated with the genomic research and molecular diagnostics carried out in the Department of Molecular Oncology. Using Next generation Sequencing, we have identified non-coding RNA (lncRNAs, miRNAs and circular RNAs) with immense potential in diagnosis of breast cancer at an early stage. The non-coding RNAs are detectable in plasma and we have patented the circulating non-coding RNAs for their use in breast cancer diagnosis. We also developed a rapid detection kit for COVID-19 using simple LAMP assay which also has been patented.

Key Publications:

1. **Rao AK,** Arvinden VR, Ramasamy D, Patel K, Meenakumari B, Ramanathan P, Sundersingh S, Sridevi V, Rajkumar T, Herceg Z, Gowda H. Identification of novel dysregulated circular RNAs in early-stage breast cancer. Journal of cellular and molecular medicine. 2021 Apr;25(8):3912-21.
2. **Deva Magendhra Rao AK,** Patel K, Korivi Jyothiraj S, Meenakumari B, Sundersingh S, Sridevi V, Rajkumar T, Pandey A, Chatterjee A, Gowda H, Mani S. Identification of lncRNAs associated with early-stage breast cancer and their prognostic implications. Molecular oncology. 2019 Jun;13(6):1342-55.
3. **Rao AKDM,** Rajkumar T, Mani S. Perspectives of long non-coding RNAs in cancer. Molecular biology reports. 2017;44(2):203-18.
4. Manikandan M, **Rao AKDM**, Arunkumar G, Manickavasagam M, Rajkumar KS, Rajaraman R, et al. Oral squamous cell carcinoma: microRNA expression profiling and integrative analyses for elucidation of tumourigenesis mechanism. Molecular cancer. 2016;15(1):28.
5. Castellone MD, De Falco, V., **Rao, D.M.,** Bellelli, R., Muthu, M., Basolo, F., Fusco, A., Gutkind, J.S., Santoro, M. The beta-catenin axis integrates multiple signals downstream from RET/papillary thyroid carcinoma leading to cell proliferation. Cancer Res. 2009;69:1867-76.

Google scholar link:
https://scholar.google.com/citations?user=Csww7bAAAAAJ&hl=en&oi=sra