

Accomplishments

Dr. G. Gopal

Received Master's degree in Biochemistry, perused Ph.D degree at the Department of Molecular Oncology, Cancer Institute (WIA) and awarded Ph.D. in Molecular Oncology/Biochemistry from the University of Madras. Underwent Post-Doctoral training from the University of Miami, USA and the University of Texas, MD Anderson Cancer centre, USA. Identification and assessment of prognostic and predictive biomarkers for Breast and Gastric Cancer. Development and assessment of novel peptide and anti- CD99 based approach for targeting Ewing's sarcoma cells. Identification of novel extra ribosomal functions for Mitochondrial Ribosomal small subunit proteins and their dysregulation in cancer. Identification of tumor suppressor kinases inactivation by pathogenic genetic variants and analysis of consequential dysregulated signalling in Gastric Cancer. Development of novel assays and workflows for analysis of proteins, drugs and metabolites using MALDI mass spectrometry and Liquid chromatography Mass spectrometry (LC/MS).

Key Publications:

1. Prarthana Gopinath, **Gopisetty Gopal***, Sridevi Veluswami, Shirley Sundersingh, Thangarajan Rajkumar: Mass spectrometric profiling of tryptic digests of Trifluoroethanol extracts from core needle biopsies of breast cancer tissues is a viable sample screening tool for biomarker discovery. *Journal of Proteins and Proteomics* (In-press)
2. Oviya RP, **Gopal G***, Shirley SS, Sridevi V, Jayavelu S, Rajkumar T: Mitochondrial ribosomal small subunit proteins (MRPS) MRPS6 and MRPS23 show dysregulation in breast cancer affecting tumorigenic cellular processes. *Gene* 2021, 790:145697.
3. Oviya RP, **Gopal G***, Jayavelu S, Rajkumar T: Expression and affinity purification of recombinant mammalian Mitochondrial Ribosomal Small Subunit (MRPS) proteins and protein-protein interaction analysis indicate putative role in tumorigenic cellular processes. *J Biochem* 2021.
4. Thangaretnam KP, **Gopisetty G***, Ramanathan P, Rajkumar T: A polypeptide from the junction region sequence of EWS-FLI1 inhibits Ewing's sarcoma cells, interacts with the EWS-FLI1 and partner proteins. *Scientific reports* 2017, 7(1):1-12.
5. Gopinath P, Veluswami S, Thangarajan R, **Gopisetty G***: RP-HPLC-UV Method for estimation of Fluorouracil–Epirubicin–Cyclophosphamide and their metabolite mixtures in human plasma (matrix). *Journal of chromatographic science* 2018, 56(6):488-497.

*Corresponding author

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