

Characterization of Cancer Stem cells in Leukemic Patients in South India

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Abstract

Cancer stem cells (CSCs) are important in the prognosis of malignant diseases as they are Present in the majority of malignant tumor tissues, and are resistant to chemo-radiation therapy as compared to their differentiated progenies. By identifying cancer stem cells early in blood, it will be possible to distinguish metastasis in early stages. It may be necessary to utilize a panel of CSC markers in order to effectively translate knowledge of CSCs into patient benefit. We characterized around 11 lymphocytic and myelocytic leukemic patient samples for the presence of leukemic stem cell (LSC) markers by flow cytometry and real time PCR. We identified varying levels of expression of stem cell markers like ABCG2, CD90, CD96, CD123, CXCR4, CLL-1 and other genes like Wnt3A, TERT, Notch1, Nanog, Sox2, Oct4, BMI1, β Cat and m- TOR. The expression pattern of these markers could be used in the prognosis of disease.

Biography

Dr.Madhumathi J completed her Ph.D from Anna University, Chennai, India and carried out her Post-doctoral work in Indian Institute of Technology, Chennai from the grant she received from the Department of Science and Technology, Government of India. She received young investigator award for developing Vaccines for Filariasis from the International Society of Infectious Diseases (ISID) in 2014 at the 16th ICID conference in Cape Town, South Africa. She has two patents for vaccine development, 25 publications and two book chapters to her credit with 285 citations and H-index of 10. Currently she works as Scientist at Indian Council of Medical Research, New Delhi, India.



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