



Different Cell Culture Mediums Show Various Effects on CD8 + T Cells Expansion: A Bioinformatics Study

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Abstract:

Expansion of T cells, especially CD8 + cells, is very important for cell therapy approached in diseases related to the immune system. Finding signaling pathways and molecules involved in improving the quality and quantity of T cells can be a great help in compensating the lost lymphocytes in the body. In this study, with the use of bioinformatics analysis and the use of enrichment databases, gene expression profiles were investigated using microarray analysis. The results of this study were the joint selection of 26 upregulated genes and 59 downregulated genes that were involved in SREBP control of lipid synthesis, co-stimulatory signal during T-cell activation mitosis and chromosome dynamics, telomeres, telomerase, and cellular aging signal pathways. Using bioinformatics analyzes, integrated and regular genes were selected as common genes CD80, LST1, ATM and ITM2B in 4-1BBL, Akt inhibitor, interleukin 7 and 15 expansion media.

Biography:

Arsalan Jalili is a cell therapy researcher. During last years, he has focused on cancer biology and infection. His next generation publications will assess the best techniques for expansion, activation and finally achievement of a proper T cell product for therapeutic approaches. His aim is to setup a cost effective techniques for immune cells expansion

Publication of speakers:

- Arsalan Jalili et al ; Signaling pathways involved in chronic myeloid leukemia pathogenesis: The impor-



tance of targeting Musashi2-Numb signaling to eradicate leukemia stem cells, 2019 Jun 22

- Arsalan Jalili et al ; The impact of Mir-9 regulation in normal and malignant hematopoiesis, 2018 Mar 27
- Arsalan Jalili et al ; Exploring the Interaction of Cobalt Oxide Nanoparticles with Albumin, Leukemia Cancer Cells and Pathogenic Bacteria by Multispectroscopic, Docking, Cellular and Antibacterial Approaches, 2020 Jun 25
- Arsalan Jalili et al ; Prevalence and resistance pattern of Moraxella catarrhalis in community-acquired lower respiratory tract infections, 2015 Jun 31
- Arsalan Jalili et al ; Mini-extracorporeal Circulation and Off-pump Techniques Associated with Less Inflammatory Gene Expression as Compared to On-Pump in the 24-hour Postoperative Window Following Coronary Artery Bypass Grafting, 2015 December 16

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