



Iranian. J. Immunol. Volume 9, Supplement 1, April 2012

11<sup>th</sup> International Congress of Immunology & Allergy

• **Induction of Cytotoxicity in Melanoma Cell Line by CD8 + T cells Treated with Immunomodulator Fraction of Garlic (R10)**

Rashidi H<sup>1\*</sup>, Ghazanfari T<sup>1</sup>, Jalaie Sh<sup>2</sup>

<sup>1</sup>Immunoregulation Research Center and Department of Immunology of Medical Faculty, Shahed University, Tehran, Iran, <sup>2</sup>Department of Biostatistics of Rehabilitation Faculty, Tehran University of Medical Sciences, Tehran, Iran

Background: With extensive studies during the two past decades on garlic the antitumor effects of this medicinal plant has been identified and reported. In this research the effect of immunomodulator R10 fraction isolated from the garlic was evaluated on Cytotoxicity activity of CD8+ T cells against a melanoma cell line. Materials and Methods: Melanoma Cell line was purchased from cell bank of Pasteur Institute of Iran. R10 fraction was prepared using ultrafiltration. CD8 + T cells were isolated by magnet bead method. Cytotoxicity was measured with Cytotoxicity Detection Kit (LDH). Apoptosis was measured with Cell Death Detection ELISA<sup>PLUS</sup> kit. Results: The findings show that the R10 fraction is able to induce dose-dependent cytotoxicity and apoptosis effects on the melanoma cell line through CD8 + T cells and the optimum effect is achieved in the 1/50 dilution of R10. Conclusion: The results show that the fraction of R 10 can induce nonspecific cytotoxicity in target cells via CD8+ T cells

Keywords: apoptosis, CD8 + T cells, Cytotoxicity, melanoma, R10 fraction, garlic