IMPROVED METHODS OF CELL CULTURE FOR ADOPTIVE CELL THERAPY

ABSTRACT

Production and use of novel therapeutic cells, called T-Vehicles, in the allogeneic Adoptive Cell Therapy setting allows a wide range of therapeutic benefits to accrue with minimal or no risk of GVHD. T-Vehicles are created from donor T cells that are altered to contain therapeutic attributes that do not include their native antigen receptors and can deliver therapeutic benefits irrelevant of their native antigen specificity. T-Vehicles can possess highly restricted native antigen specificity that renders them unable to recognize antigens present on normal cells and incapable of initiating GVHD, making them ideal transport vehicles to deliver various therapeutic attributes in vivo. In essence, production and use of T-Vehicles is a paradigm shift that opens the door to therapeutic application of T cells in ways not previously contemplated, independent of whether or not there is an HLA match between the donor and the recipient.

[Figure 14]