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Autologous IL-21-Modulated CD8+ MART1-Specific T Cells

National Cancer Institute

Source

National Cancer Institute. *Autologous IL-21-Modulated CD8+ MART1-Specific T Cells*.

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A preparation of interleukin 21 (IL-21) stimulated, CD8+ T-lymphocytes sensitized to MART-1 (melanoma antigen recognized by T-cells) antigen with potential immunostimulating and antineoplastic activities. CD8+ T-lymphocytes are exposed ex vivo to autologous dendritic cells (DCs) pulsed with MART-1 antigen peptide and grown in the presence of IL-21. These tumor-reactive T-cells may stimulate a host immune response against tumor cells expressing the MART-1 antigen, resulting in tumor cell lysis. MART-1 is expressed by certain types of melanoma cells. IL-21, a cytokine involved in the regulation of cellular immune responses, may play a key role during priming of antigen-specific CD8+ T cells and may enhance proliferation of the CTLs.