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PDNA-encoding Emm55 Autologous Cancer Cell Vaccine IFx-Hu2.0

National Cancer Institute

Source

National Cancer Institute. pDNA-encoding Emm55 Autologous Cancer Cell Vaccine IFx-Hu2.0. NCI Thesaurus. Code C157262.

A whole cell cancer vaccine composed of irradiated autologous whole tumor cells that are transfected, ex vivo, with a plasmid DNA encoding the highly immunogenic *Streptococcus pyogenes* (*S. pyogenes*) bacterial antigen Emm55, with potential immunostimulating and antineoplastic activities. Upon intralesional administration of IFx-Hu2.0, the tumor cells expressing the Emm55 bacterial antigen on their cell surface are taken up and processed by antigen-presenting cells (APCs), thereby presenting both the Emm55 and the patient-specific tumor-associated antigens (TAAs) to the immune system. This activates the immune system to elicit a tumor antigen-specific cytotoxic T-lymphocyte (CTL)-mediated immune response against the tumor cells expressing the TAAs.