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# Personalized Live-attenuated Double-deleted *Listeria monocytogenes*

National Cancer Institute

## Source

National Cancer Institute. *Personalized Live-attenuated Double-deleted Listeria monocytogenes*. NCI Thesaurus. Code C137823.

A proprietary, personalized live, attenuated, double-deleted (pLADD) strain of the Gram-positive bacterium *Listeria monocytogenes* encoding multiple, patient-specific neoantigens, with potential immunostimulatory and antineoplastic activities. Upon intravenous administration, the tumor-associated antigens (TAAs) expressed in pLADD are taken up by antigen-presenting cells (APCs), including dendritic cells (DCs), and are processed and presented to the immune system by both major histocompatibility complex (MHC) class I and II molecules. This activates the immune system and leads to both an innate immune response and the recruitment and activation of tumor-specific cytotoxic T-lymphocytes (CTLs) against the TAAs specifically expressed by the patient's tumor cells, which eventually results in tumor cell lysis.