## Open Peer Review on Qeios

## Spanlecortemlocel

National Cancer Institute

## Source

National Cancer Institute. <u>Spanlecortemlocel</u>. NCI Thesaurus. Code C111571.

A preparation of allogeneic umbilical cord blood (UCB)-derived hematopoietic stem and progenitor cells (HSPCs) expanded in culture with the stimulatory cytokines stem cell factor (SCF; Kit ligand; mast cell growth factor; MGF), FMS-like tyrosine kinase 3 ligand (Flt3L), interleukin 6 (IL-6), and thrombopoietin, in the presence of an aryl hydrocarbon receptor (AHR) antagonist LHD221 (StemRegenin-1; SR-1), with potential to improve hematopoietic recovery following myeloablative conditioning. Upon administration of Spanlecortemlocel, these cells increase and restore the number of HSPCs, which may prevent or decrease the risk of infection and other complications of chemotherapyinduced neutropenia (CIN) or cord blood transplantation. LHD221, an AHR antagonist facilitates the expansion of CD34-positive hematopoietic progenitors and impedes HSPC differentiation during cytokine-driven expansion in culture.