Sayens - Projet technologique

https://www.sayens.fr/en/portefeuille-offres/projets-technologiques/e-mdscs/

e-MDSCs

European patent pending

Partner laboratory:
IMoPA UMR 7365 CNRS UL

- Treatment of GVH
- Cellular therapy
- Optimized production process

Context

Allograft is an immunotherapy based on hematopoietic stem cells (HSCs) used in the treatment of certain blood cancers (acute leukemia) but which is often accompanied by graft-versus-host disease (GVHD) (from

35 to 80% of cases depending on the compatibility of the donors)

The use of e-MDSCs for the treatment of GVHD would prevent the occurrence of this harmful consequence of allograft transplantation by preserving the elimination of residual tumor cells by the immune system (GVL effect). This innovative therapy thus allows the acceptance of the graft by the recipient.

Innovation

The e-MDSCs expansion technique is a new expansion process using bone marrow grafts or peripheral stem cells from healthy donors. This technique allows to obtain in only 7 days MDSCs that will be injected in the allograft patient to stabilize the graft and prevent the effect/appearance of GVH.

Benefits

- Prevention of GVH while preserving the GVL effect
- Induction of immunotolerance
- Weakly immunogenic cells
- Cells with high immunosuppressive power
- Cells produced in 7 days in clinical grade
- Allows weaning of immunosuppressants

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