IDF INNOV

From invention to innovation

DIAGNOSTIC KIT FOR ACUTE GVHD PREDICTION

Reliable detection kit for selecting, before transplantation, the appropriate donor that will not initiate acute GvHD

GvHD ▪ T Lymphocyte ▪ Diagnostic kit ▪ Prediction kit ▪ Transplantation ▪ Cell culture ▪ HSCT

APPLICATIONS

- Detection kit to prevent acute GvHD in case of hematopoietic stem cell transplantation
- Potential enlargement to other organ transplantations

DEVELOPMENT PHASE

Kit standardized

Ongoing multicenter clinical trial

PUBLICATIONS

Rubio MT & al., Blood 2012

INTELLECTUAL PROPERTY

PCT patent application WO2014079946 filed on 2013

CONTACT

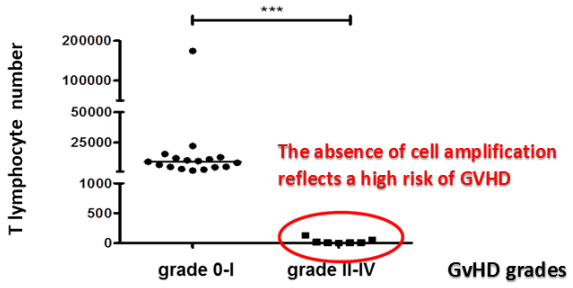
Mail : bd-sante@idfinnov.com

Phone : +33(0)7.61.86.77.56

PRESENTATION

Acute graft versus host disease (GvHD) is the main source of morbidity and mortality for patients after allogenic hematopoietic stem cell transplantation. It is caused by the reaction of some immune cells contained in the grafted hematopoietic stem cells against the host. Up to now, despite the use of donor selection criteria (HLA histocompatibility, sex, age and medical history), there is no efficient way to predict acute GvHD.

It was recently found that the amplification capacity of a rare T lymphocyte subpopulation in the graft was correlated to the occurrence and severity of GvHD. **The present offer proposes a kit for the prediction of grade II to IV acute GvHD based on the culture of these immune cells.** Their amplification predicts a reduced risk of GvHD while an absence of cell amplification reflects an enhanced risk of severe GvHD.



Comparison of T-lymphocyte cells /well on day 15 of culture from PBSC grafts (n=24 with 7 grade II-IV acute GvHD) of patients developing grade 0-I versus grade II-IV acute GvHD © Olivier Hermine

COMPETITIVE ADVANTAGES

- First accurate GvHD prediction method before graft
- First kit based on T lymphocyte culture
- Simple and robust *in vitro* diagnostic method (processing in hospital labs)