Technology Offer

CRISPR Associated Protein Reactive T Cell Immunity

Ref. No.: CH885

Background
Experiments using PBMS of healthy adults show a high prevalence of Streptococcus pyogenes Cas9 reactive T cells, indicating a high likelihood for interference in patients treated using a CRIPER CAS9-based method.

Technology
The invention is based on FACS analysis results of primary blood cells (PBMS) derived from healthy adults that had been stimulated prior to analysis.

The invention holds options for the treatment of patients that eliminate the immunological interference of the T-cell based response of patients.

Benefits
- Diagnosis of patients prior to CRISPER Cas9-based treatment using established methods
- Option for therapeutic intervention in patients showing reactive T-cell immunity against Streptococcus pyogenes Cas9.

Application
Diagnosis and Treatment of patients subject to CRISPER Cas9-based Treatment

Commercial Opportunity
Searching for a licensing or developing partner

Fig. 1: Ubiquitous peripheral SpCas9-specific T cell response within human donors

- a) SpCas9-induced activation of CD8+ cells defined by CD137 expression versus unstimulated controls (n=48 each)
- b) background-normalized CD137 expression in response to SpCas9 whole protein
- c) SpCas9-induced expression of CD154, TNF-a, IFN-g and IL-2 within activated CD4+CD137+ and CD8+CD137+ T cells (n=48 healthy donors)

Key words
CRISPER Cas9, putative SpCas9-directed T cell response,

Developmental Status
Data in vitro

IP Status
EP patent application (03/2018)
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