

Cytokines for Cell Therapy

DC-CIK Research

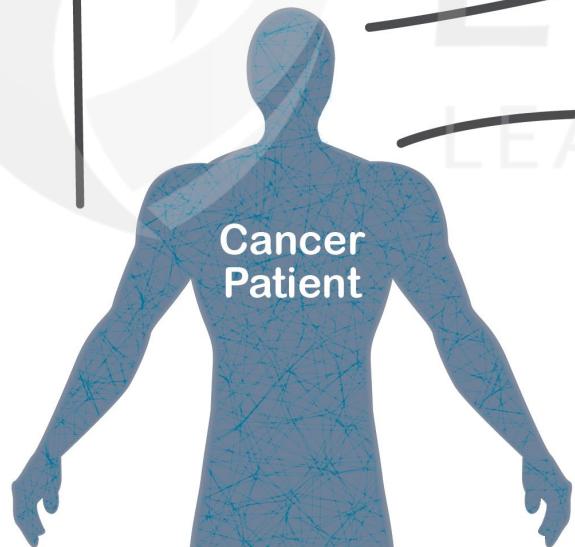
In vivo

In vitro

MHC - restricted and HMC-
unrestricted anti-tumor cytotoxicity



Activated DC-CIK
Featuring a mixed T cell -
and NK cell-like phenotype



Cancer
Patient

Leukapheresis



Tumor antigen
presenting

PBMC separation
IL-4 GM-CSF
Stimuli differentiation



Dendritic cells

IL-1 β
IL-12
IFN
TNF- α

IL-2

Cytokine-induced
killer cells

Cell expansion
IL-2
IL-15
IL-18
IFN- γ

DC-CIK cells activation
and expansion

CIK cells training

Mature DC



DC and CIK co - culture



Cell reinfusion
back to patients