

DANSKE KRÆFTFORSKNINGSDAGE 2022

Hvordan kan vi specifikt aktivere cancer-relevante T-celler og sikre en målrettet immunterapi?

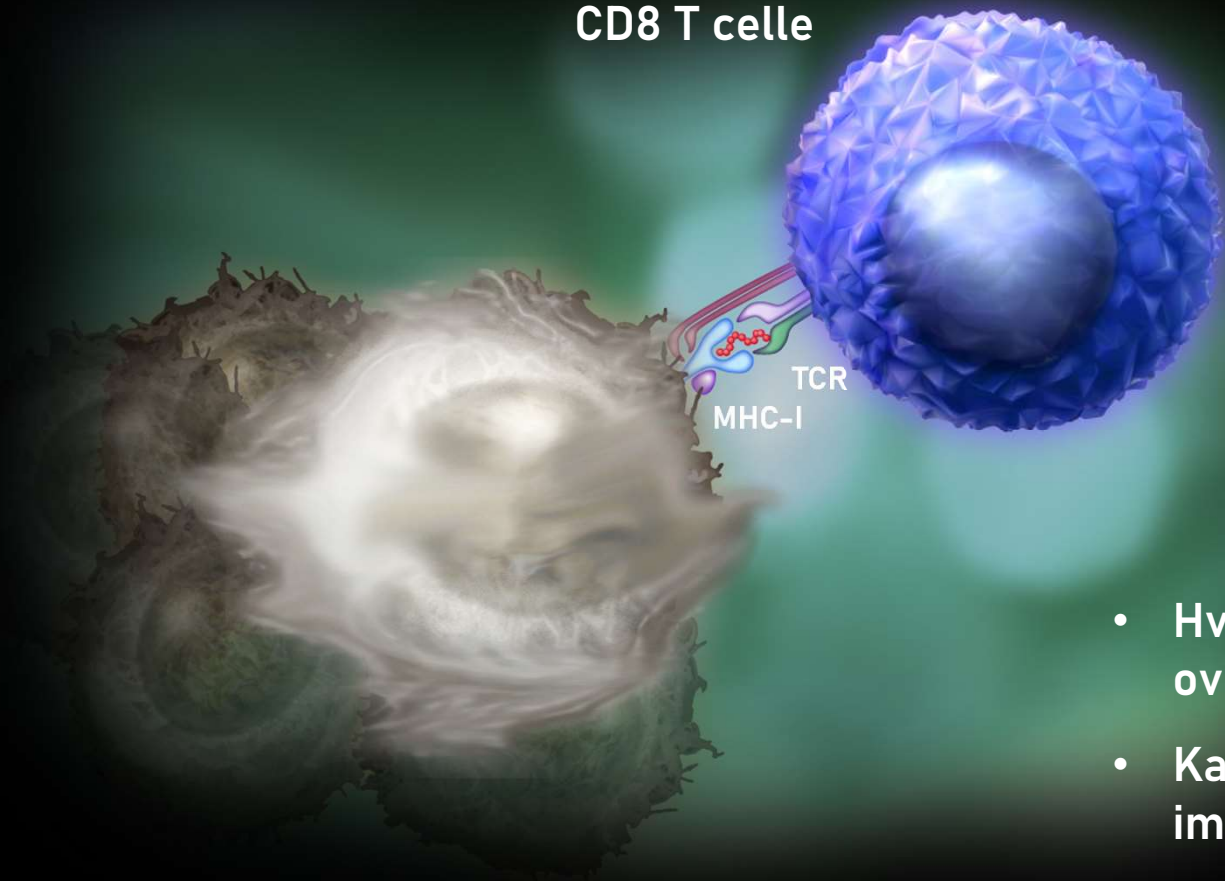
Sine Reker Hadrup
Professor

Department of Health Technology
Technical University of Denmark

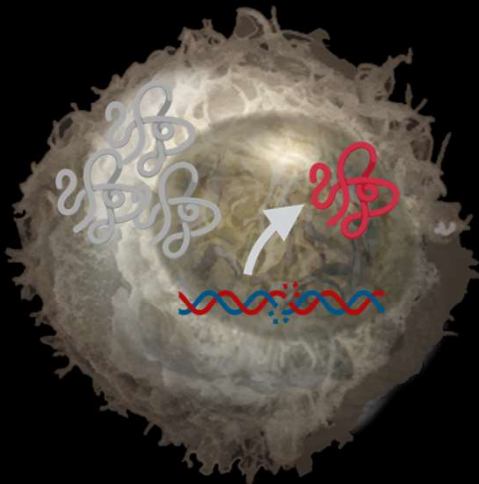
#DKD2022
#SamarbejdeOmKræft

Sli.do
#131525

CD8 T celle



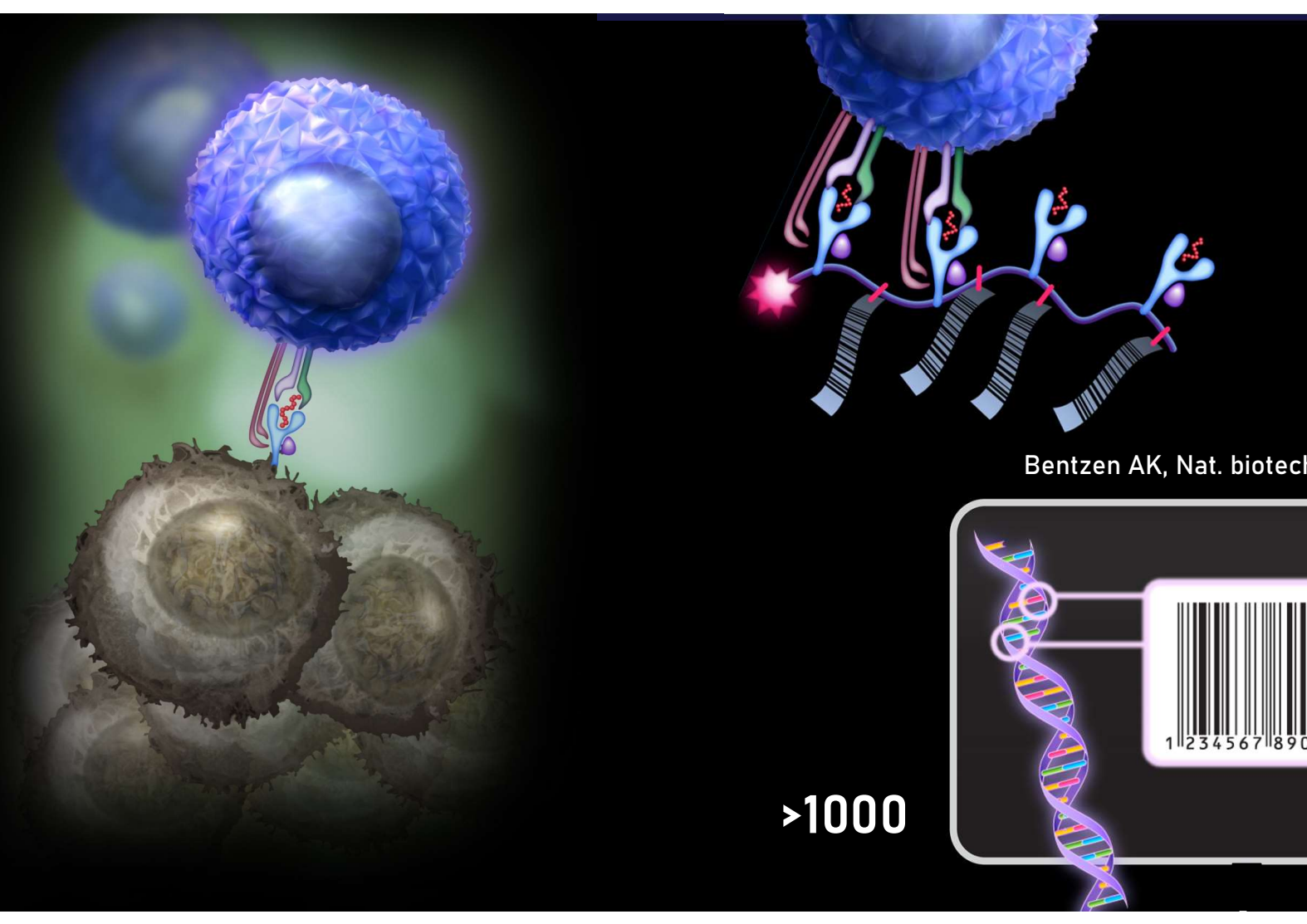
- Hvad ser T celler på overfladen af cancerceller?
- Kan vi målrette cancer immunterapi?



DNA damage:
Mutations
Frameshifts
Indels



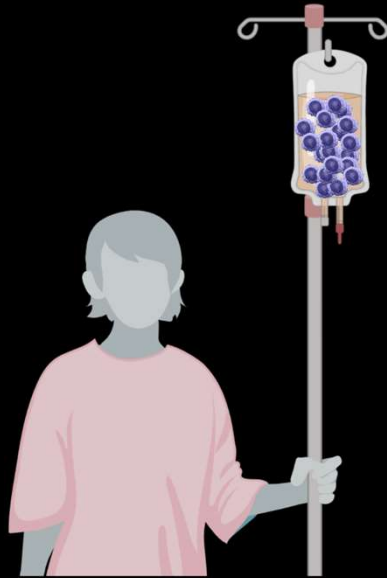
Cancer heterogeneity



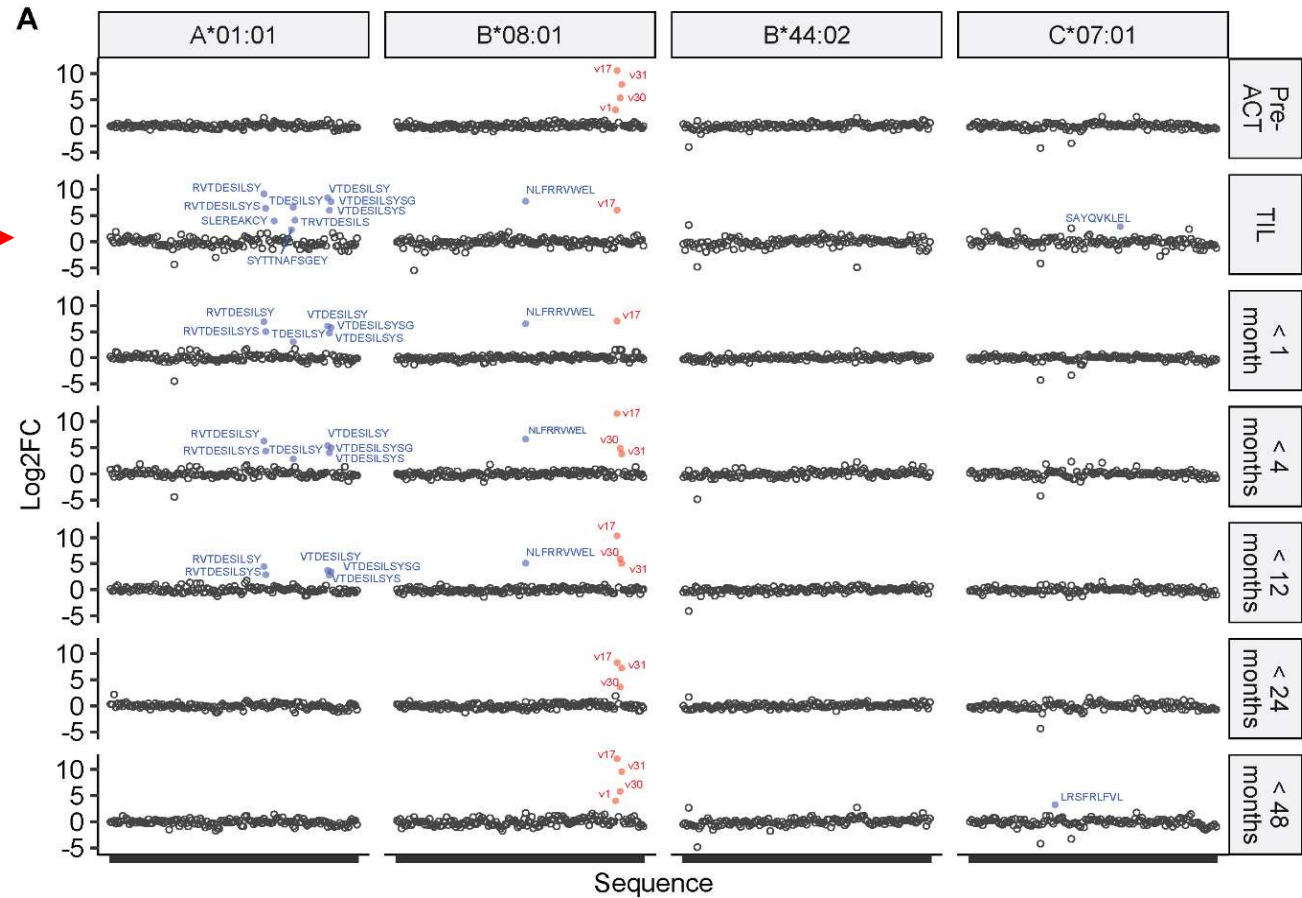
Bentzen AK, Nat. biotech, 2016

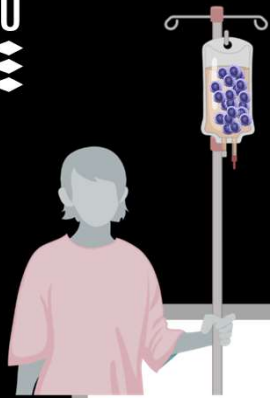
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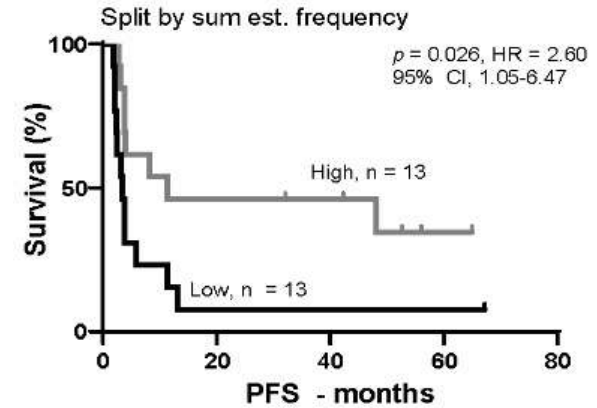
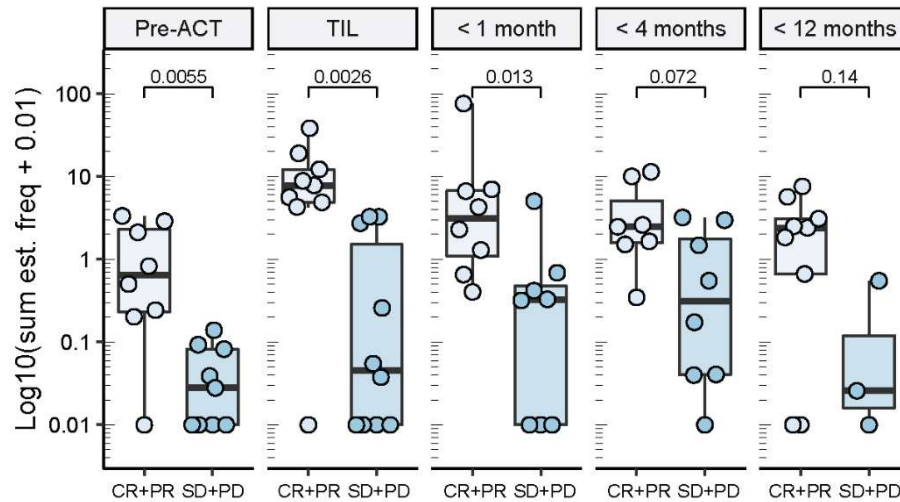


Melanoma Cancer Patienter
 Adoptiv T celle terapi med tumor
 infiltrerende lymfocytter
 National Center for Cancer Immune
 Therapy, Herlev Hospital
 Prof Inge Marie Svane, Marco Donia

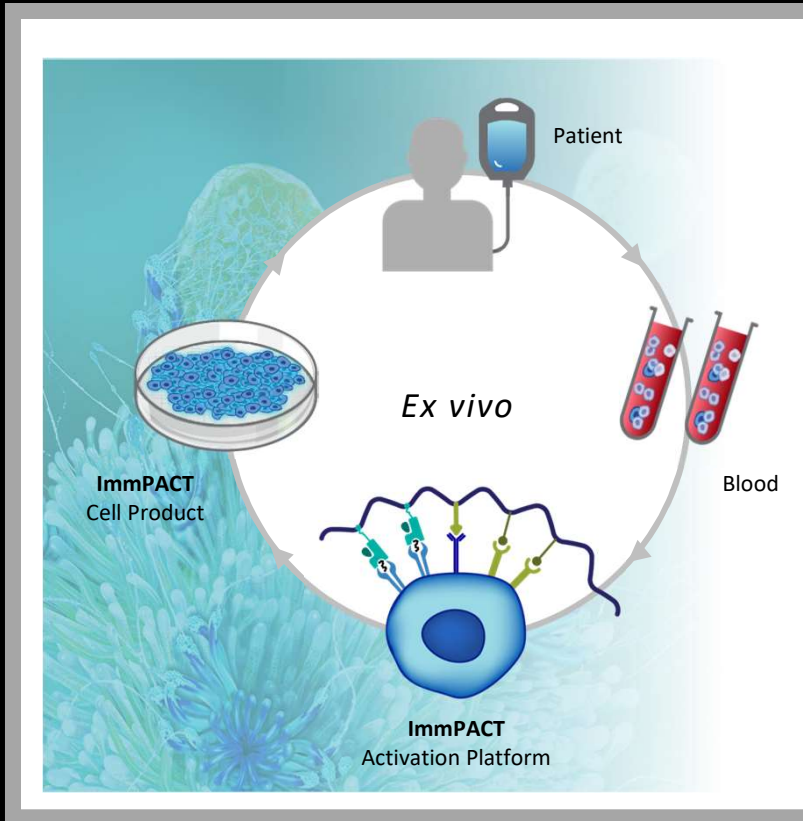
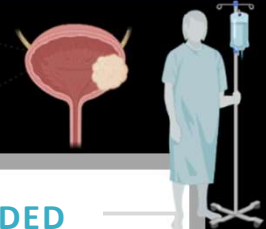




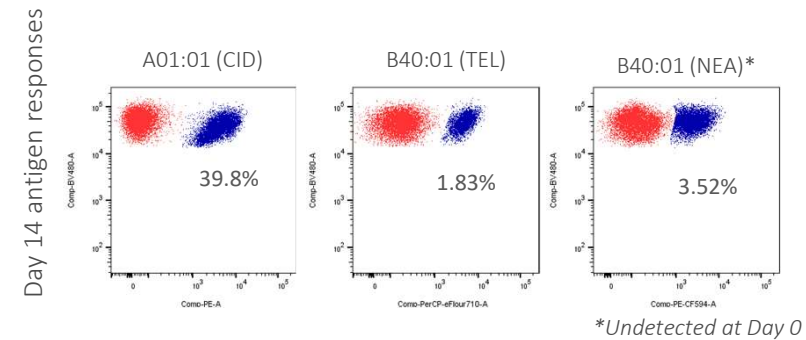
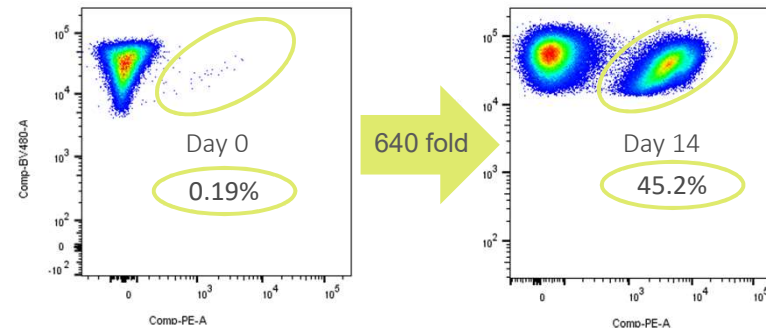
Tilstedeværelse af neoantigen specifikke T celler er associeret med bedre respons til behandling

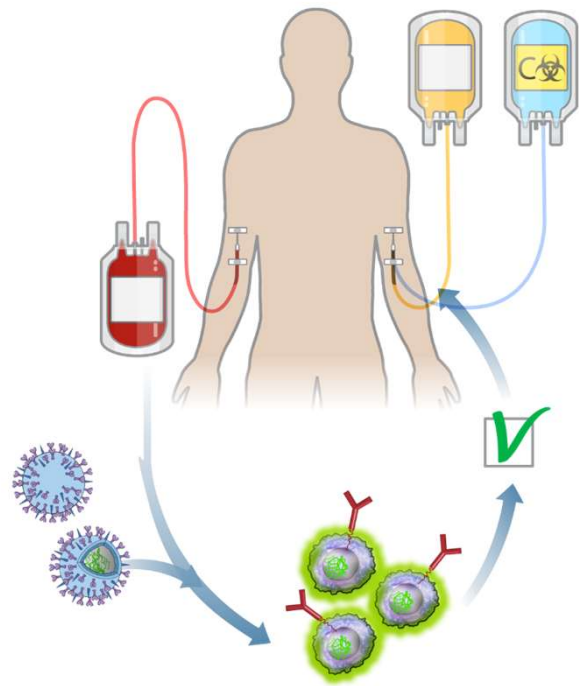


Ekspansion af Neoantigen reaktive T celler

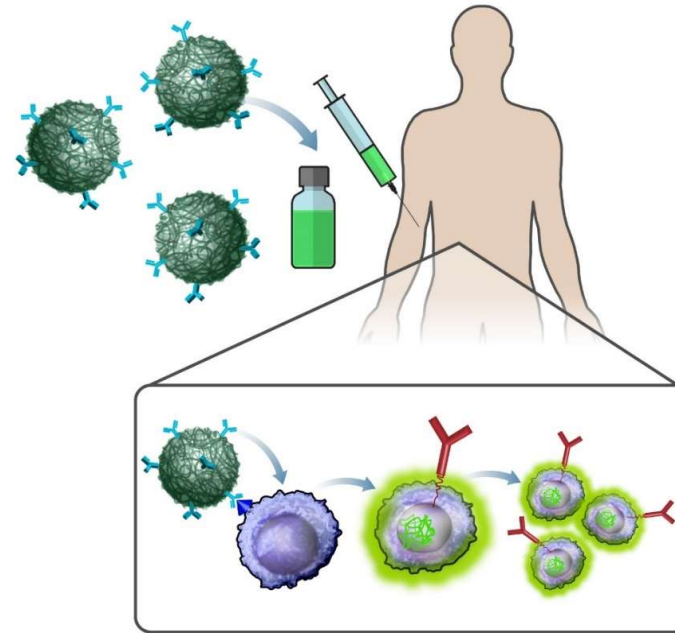


3 NART POPULATIONS ARE EXPANDED





I dag: Genmodificerede T celler fremstilles i laboratoriet og gives tilbage til patienten



I fremtiden? Genmodificerede T celler kan dannes i blodbanen vha specialdesignede nanopartikler

NICE: Center for Nano-Immune Cell-Engineering

NNF
Challenge
program



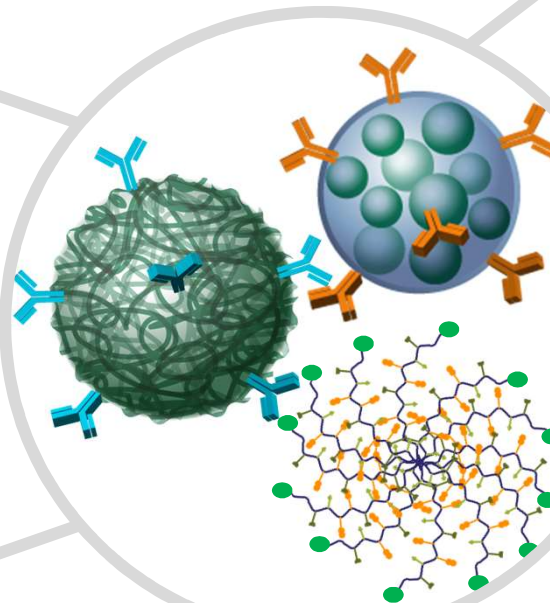
immune cells for life

Nanoparticles for targeted delivery

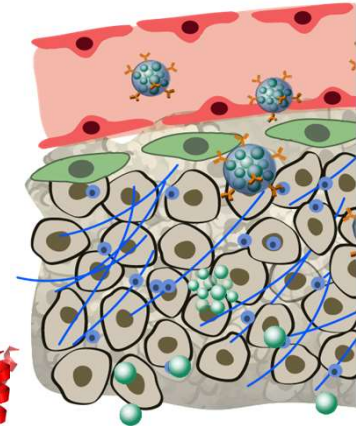
Nanopartikler er målrettet imod:
Circulerende T celler i blodbanen



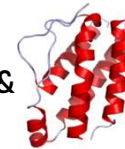
Indhold:
Gener som målretter T celler
til angreb på kræftceller



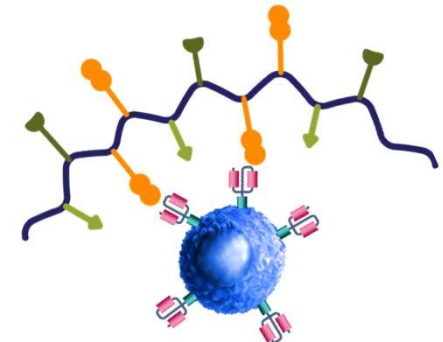
Nanopartikler som
specifikt forandrer
tumor-mikromiljøet

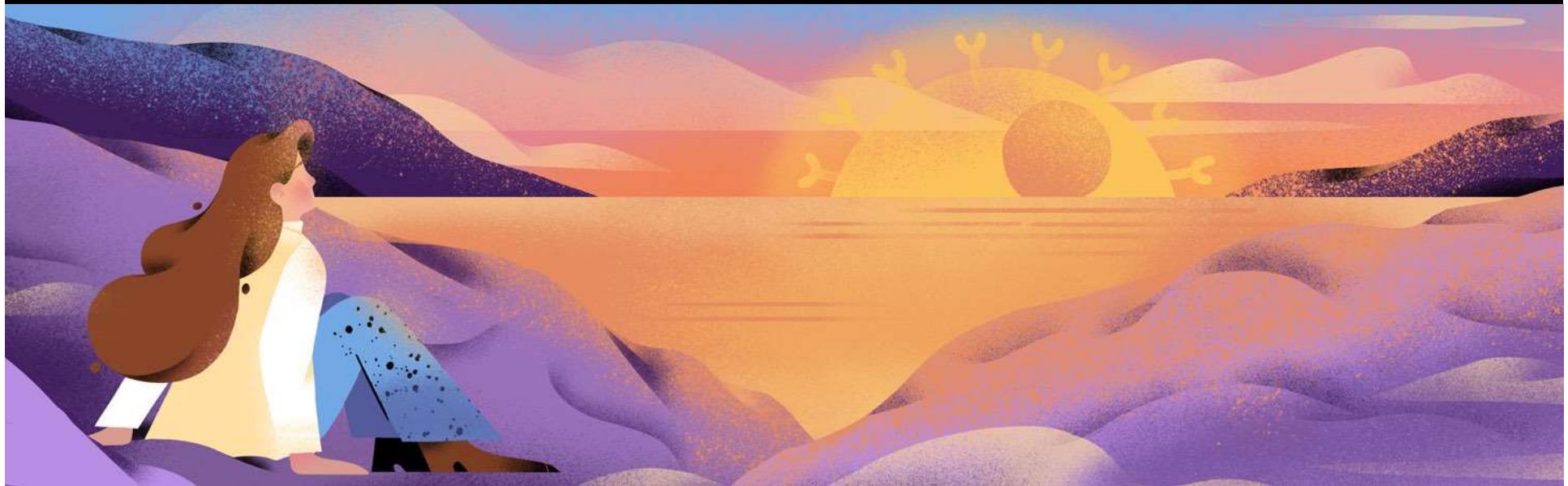


Indhold:
Ligander &
Cytokines



En stimuli til kræft-specifikke T celler
i blodbanen (f.eks CART-T celler)





Nye strategier for cancer immunterapi opstår

Tak til:

Forskningsgruppen: T cells & Cancer



Samarbejdspartnere

Patienter



Støtte fra fonde



European Research Council
Established by the European Commission



Kræftens Bekæmpelse

ново
nordisk
fonden



DANMARKS FRIE
FORSKNINGSFOND
INDEPENDENT RESEARCH
FUND DENMARK

CARLSBERGFONDET

