Immuuntherapie

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Longkanker Nederland

Opbouw

(Long)kanker

Behandeling van longkanker

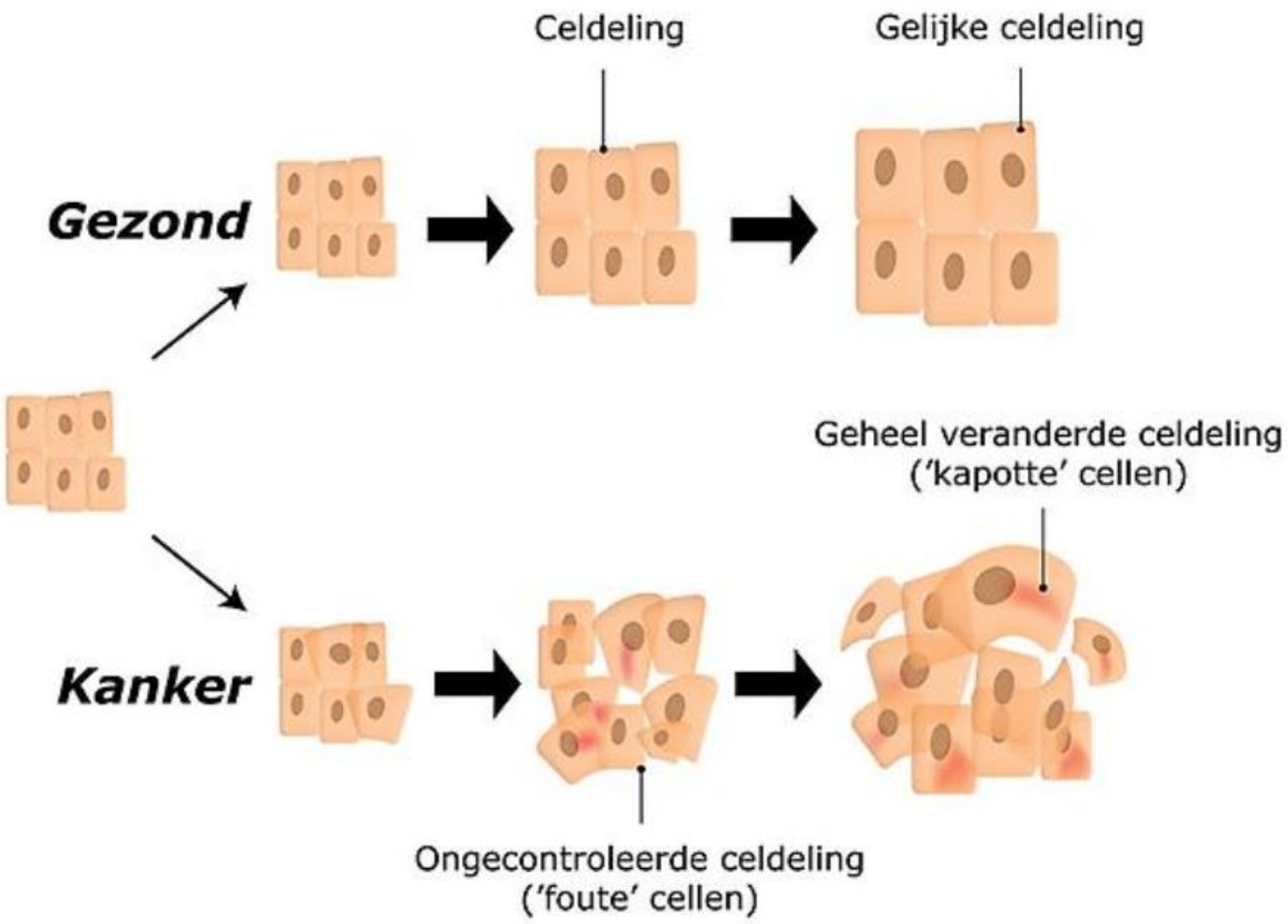
Wat is het immuunsysteem?

Huidige plaats van immunotherapie

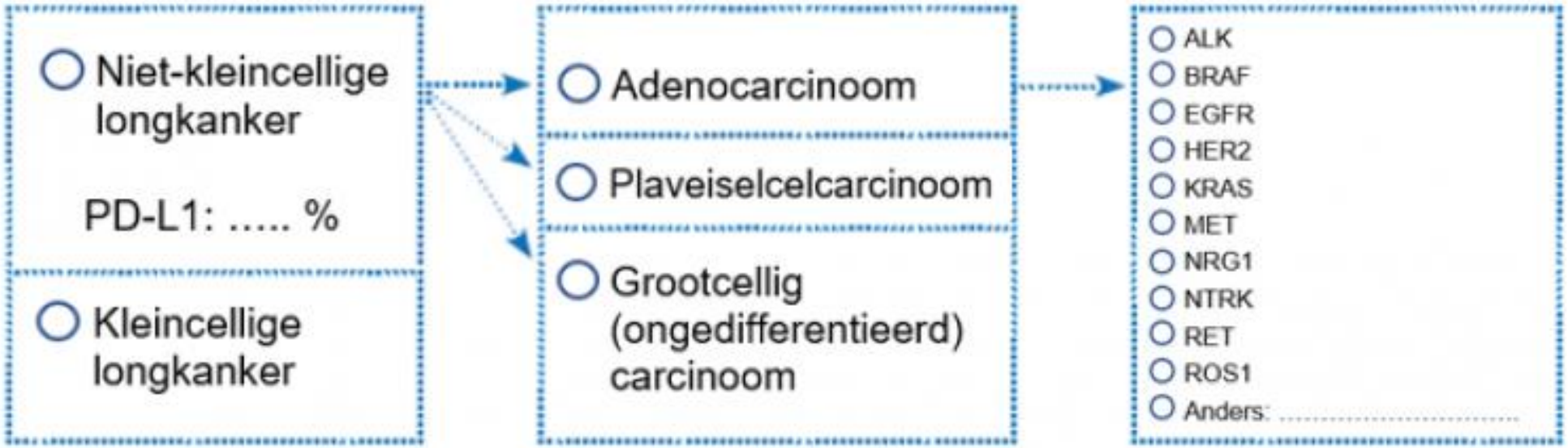
Immunotherapie, hoe (lang) werkt het?

Bijwerkingen

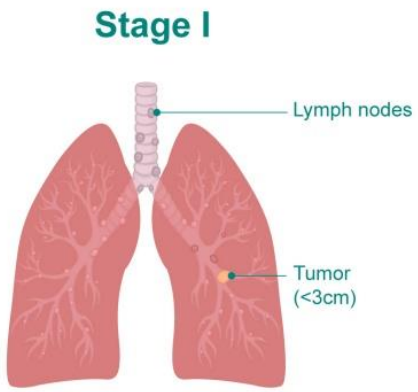
Wat is kanker

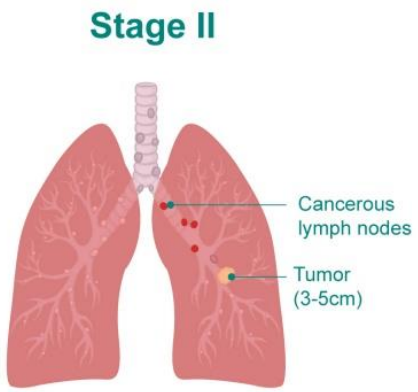


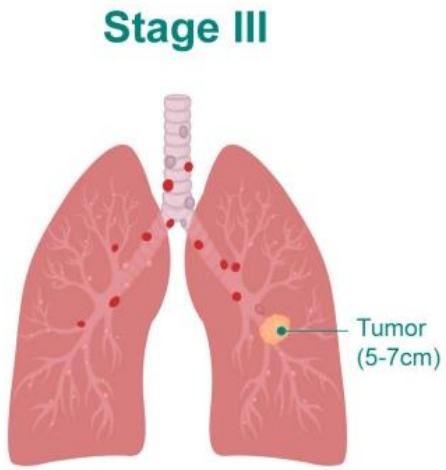
Longkanker: type

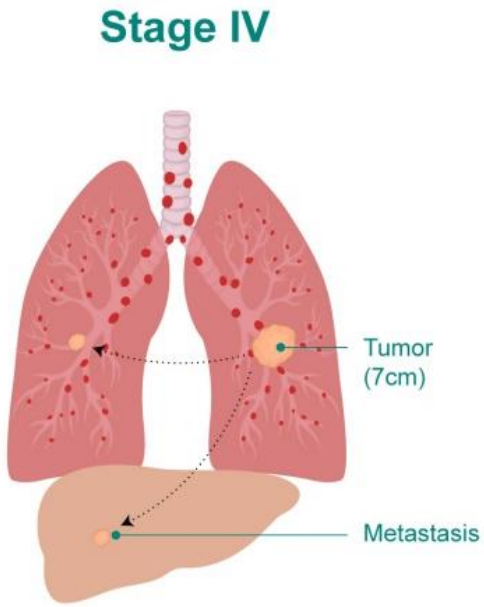


Longkanker: stadia









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Longkanker: behandeling

- Lokale therapie: chirurgie of bestraling
- Systeemtherapie:
  - Chemotherapie
  - Immunotherapie
  - (doelgerichte therapie)
- Klachtenbestrijding:
  - Pijn, benauwdheid, misselijkheid, etc.

Chemotherapie

Remt het delen van cellen door:

- Blokkeren DNA replicatie
- Verhinderen celdeling

Vaak meerdere middelen tegelijkertijd

Bijwerkingen vaak tijdelijk

Sinds de jaren ‘80 in gebruik

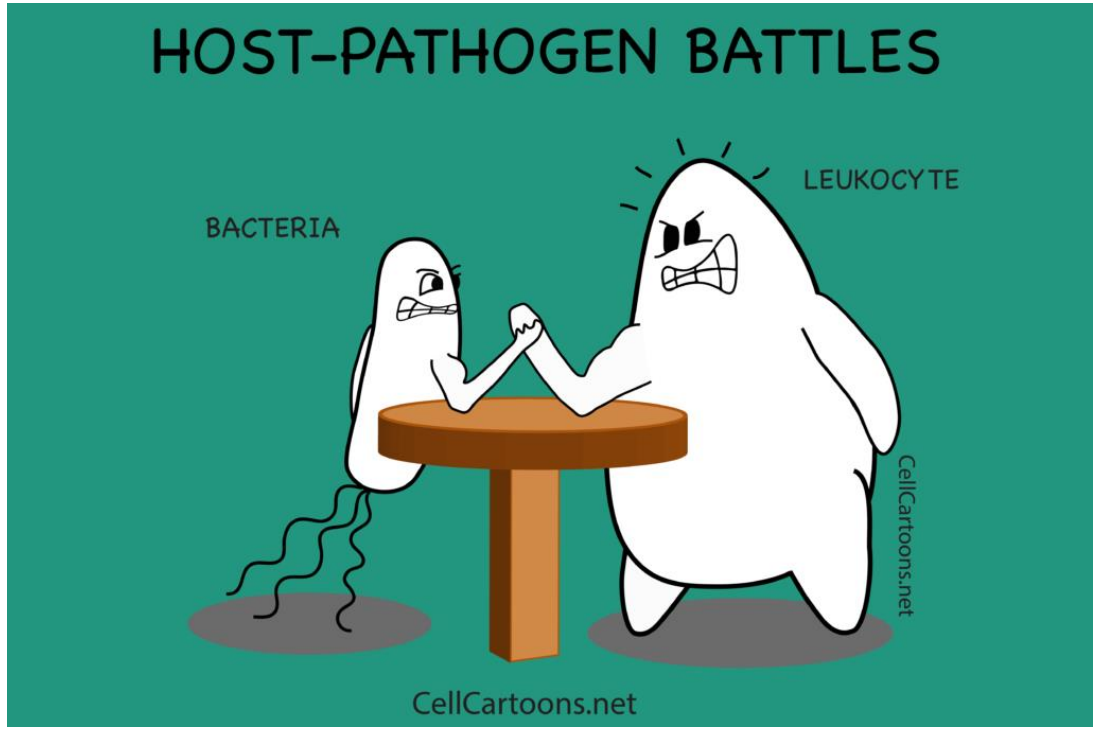
Immunotherapie / immuuntherapie

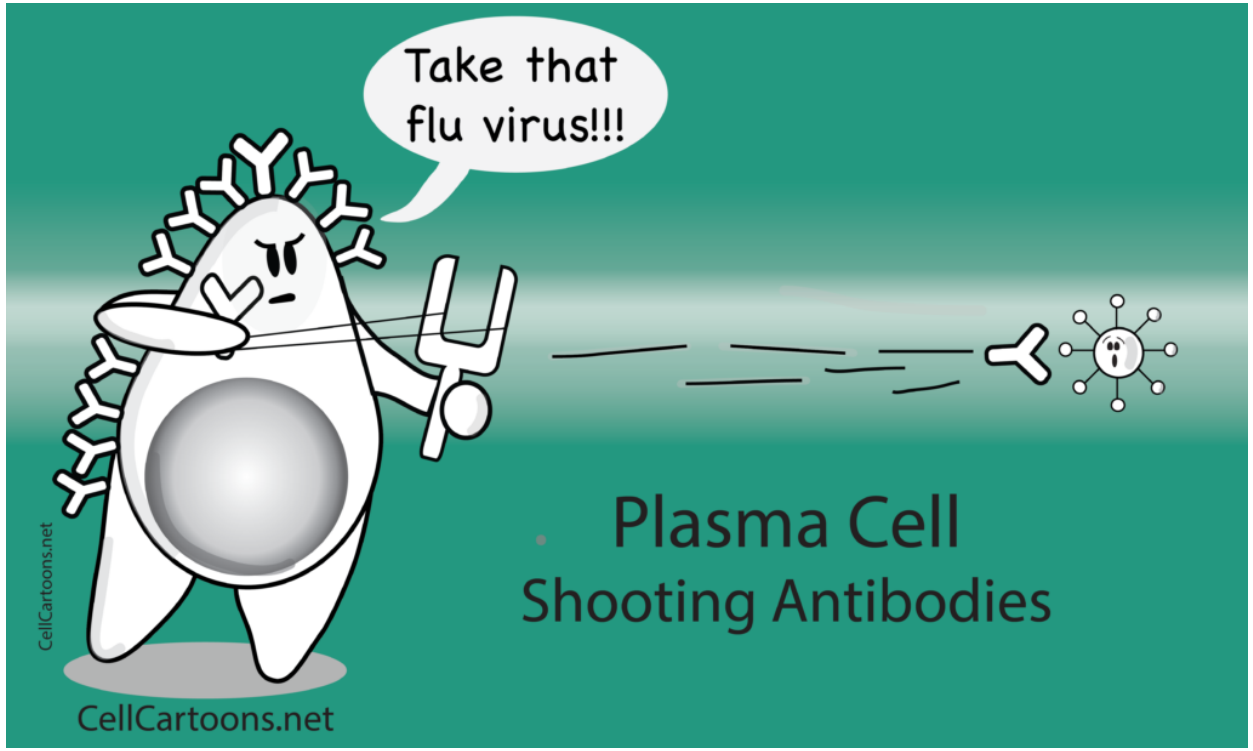
Het verwekken van immuniteit tbv een ziekte

Behandeling met immuunstimulerende middelen

Onze natuurlijke afweer of immuniteit te stimuleren om kankercellen aan te vallen en op te ruimen

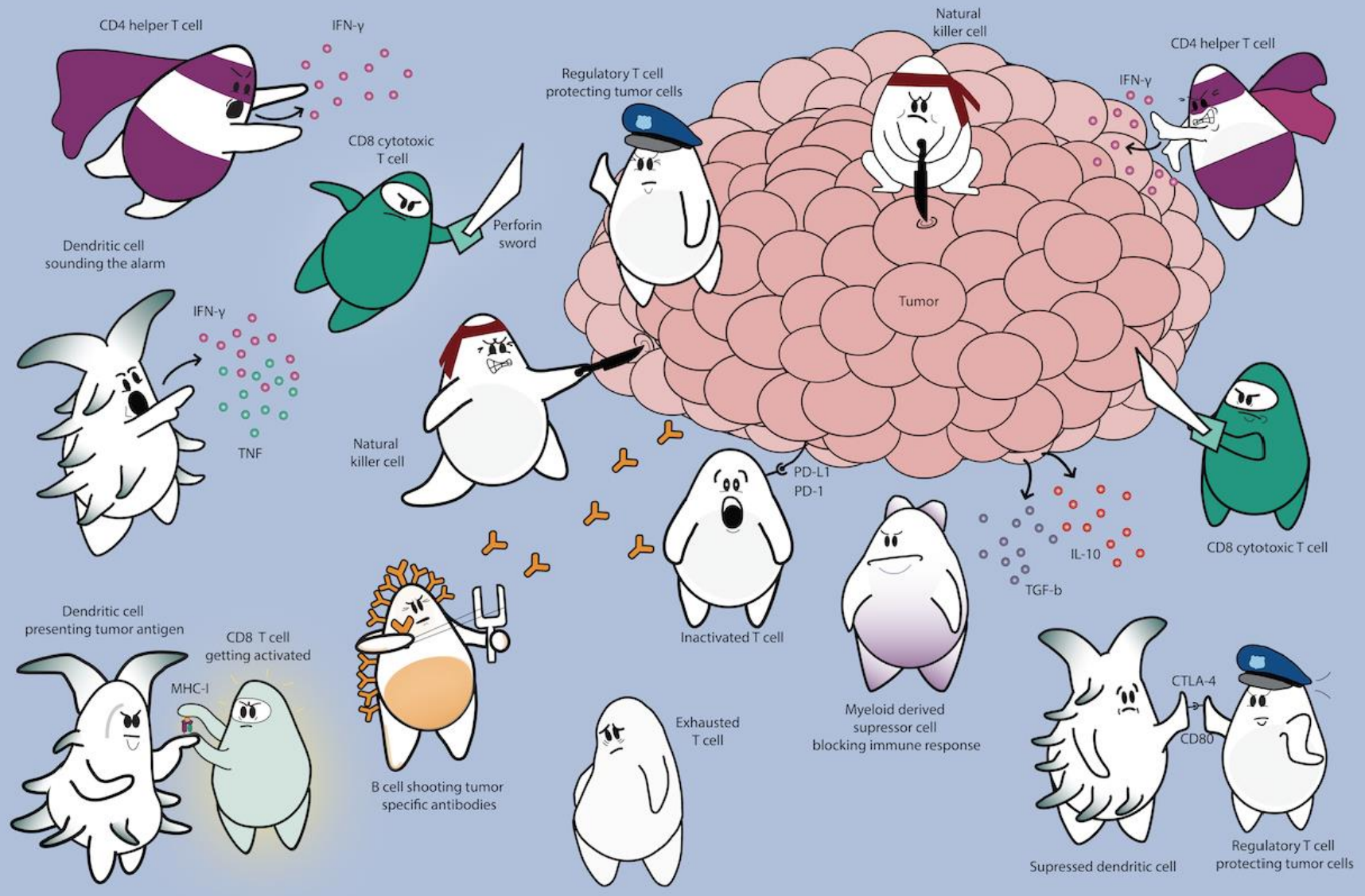
Immuunsysteem





Tumor Immunology

© CellCartoons.net



Immunotherapie

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William B Coley

° 12 jan 1862 - † 16 april 1936

Grondlegger van de immunotherapie

Coley's toxins: 1893 - 1963

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Tijdslijn immunotherapie

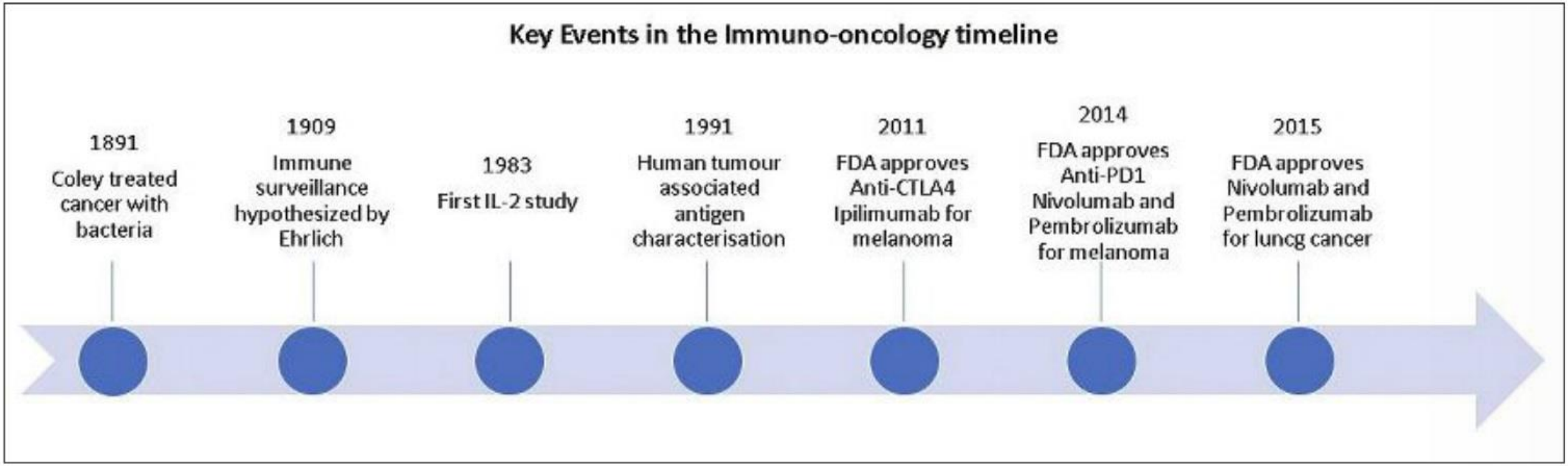

Figure 1 Key events in the immuno-oncology timeline. From Coley's early discoveries through to some of the recent approvals for melanoma and lung cancer. *Timeline adapted from Morrissey et al*

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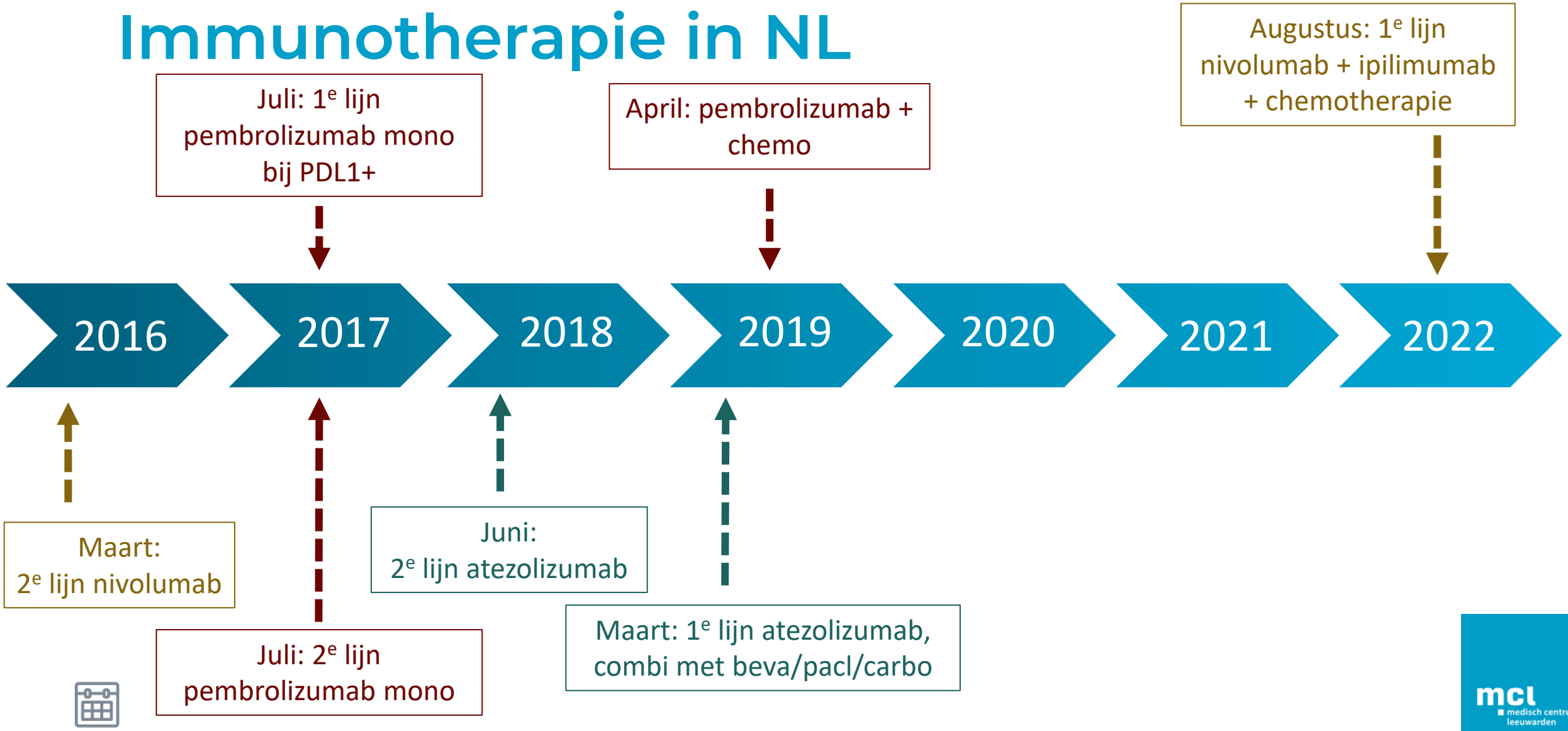
Immunotherapie in NL



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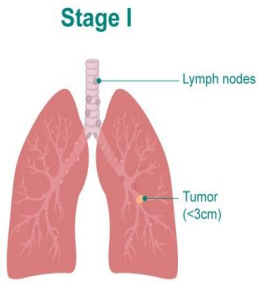
Wanneer immunotherapie?

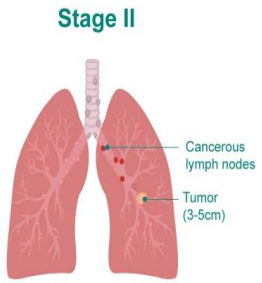
Stadium 1/2: voor of na operatie (in studieverband)

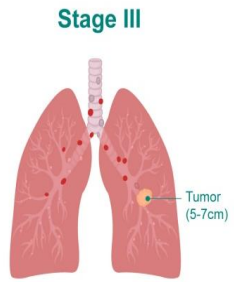
Stadium 3: na behandeling met chemo+bestraling

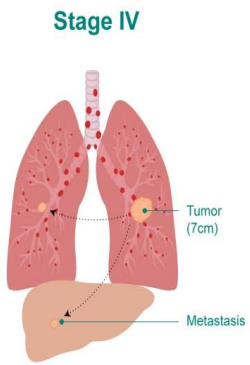
Stadium 4:

- 2e lijn na behandeling met alleen chemo
- 1e lijn, als monotherapie of met chemo

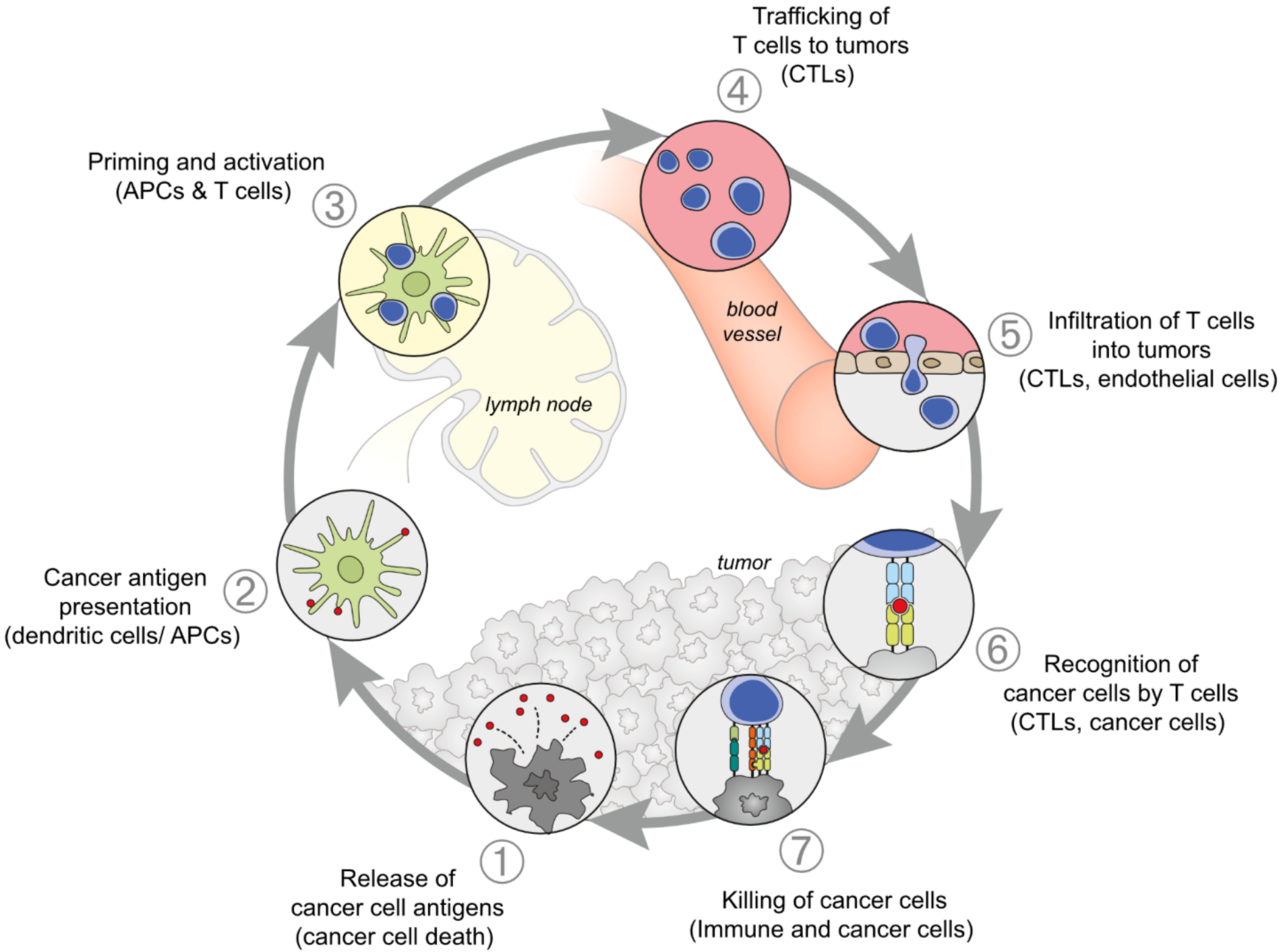


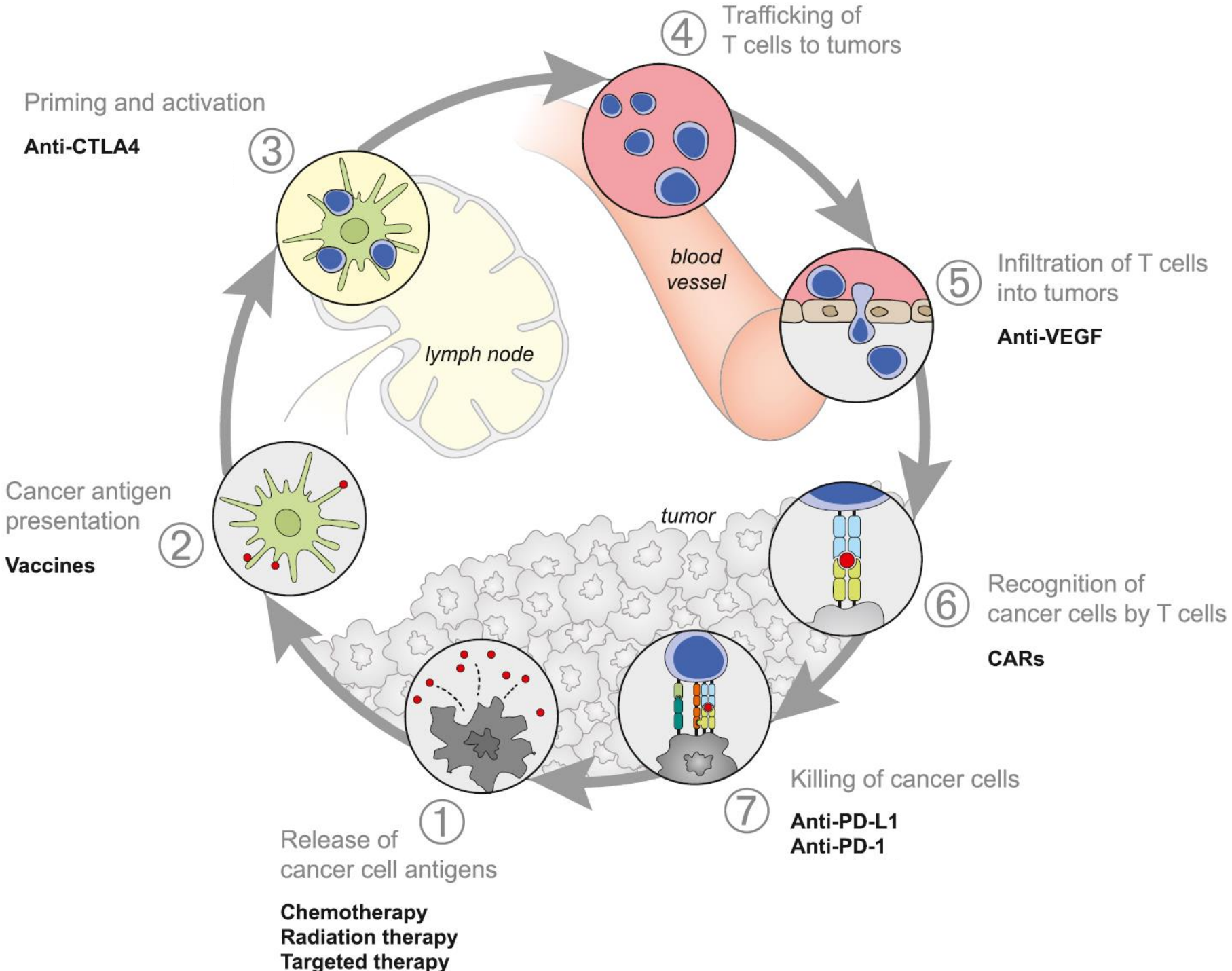






Hoe werkt immuniteit tegen kanker?


Trafficking of
T cells to tumors
(CTLs)
4
Priming and activation
(APCs & T cells)
3
blood
vessel
5
Infiltration of T cells
into tumors
(CTLs, endothelial cells)
lymph node
tumor
Cancer antigen
presentation
(dendritic cells/ APCs)
2
6
Recognition of
cancer cells by T cells
(CTLs, cancer cells)
1
7
Release of
cancer cell antigens
(cancer cell death)
Killing of cancer cells
(Immune and cancer cells)



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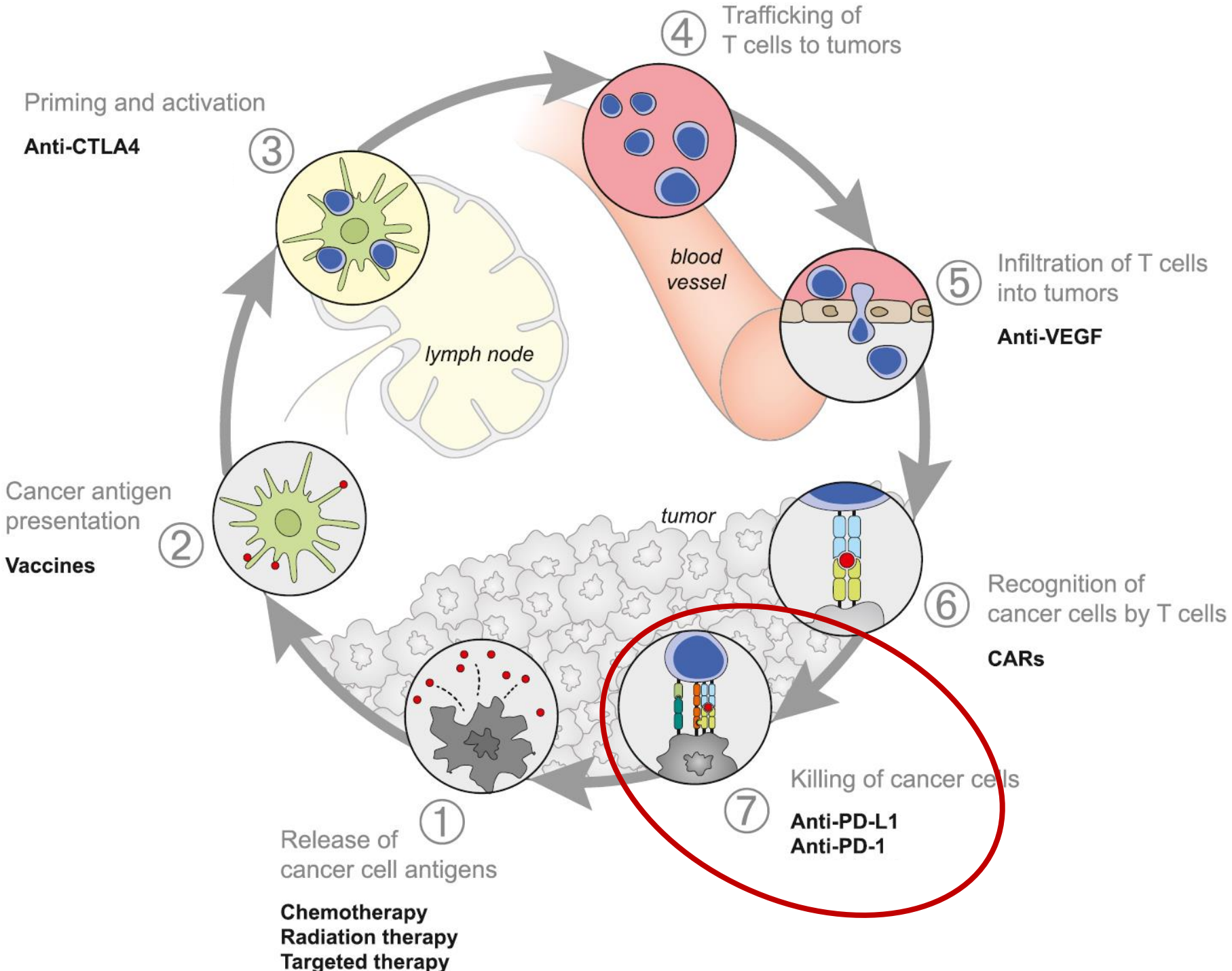

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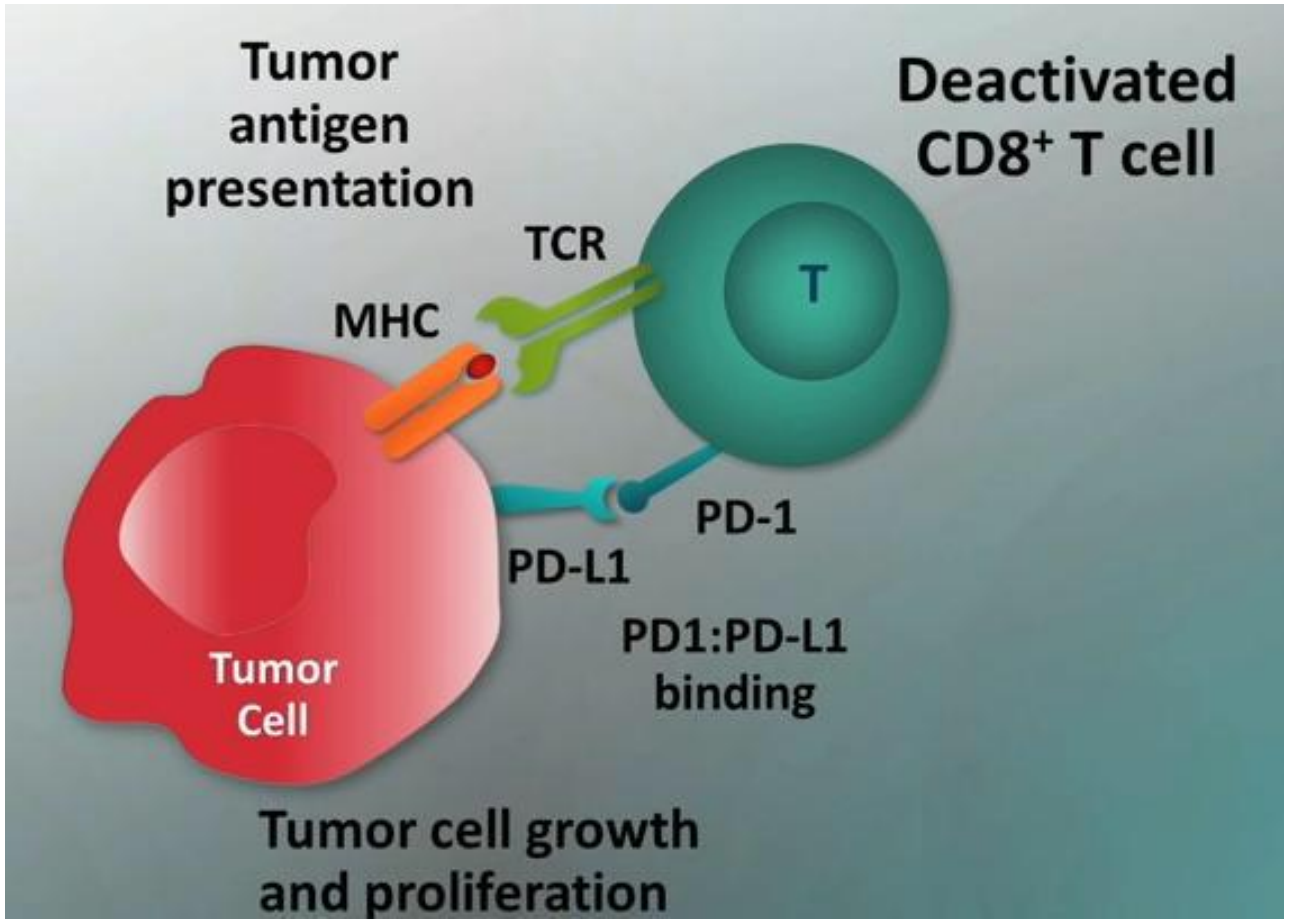
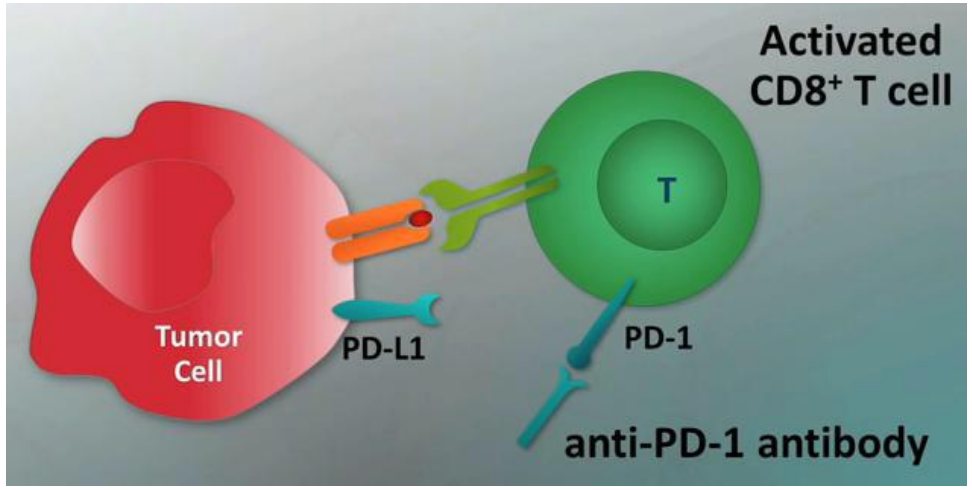
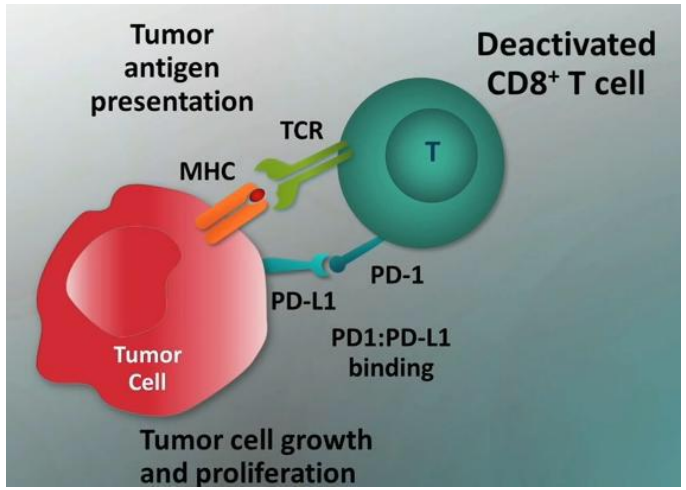
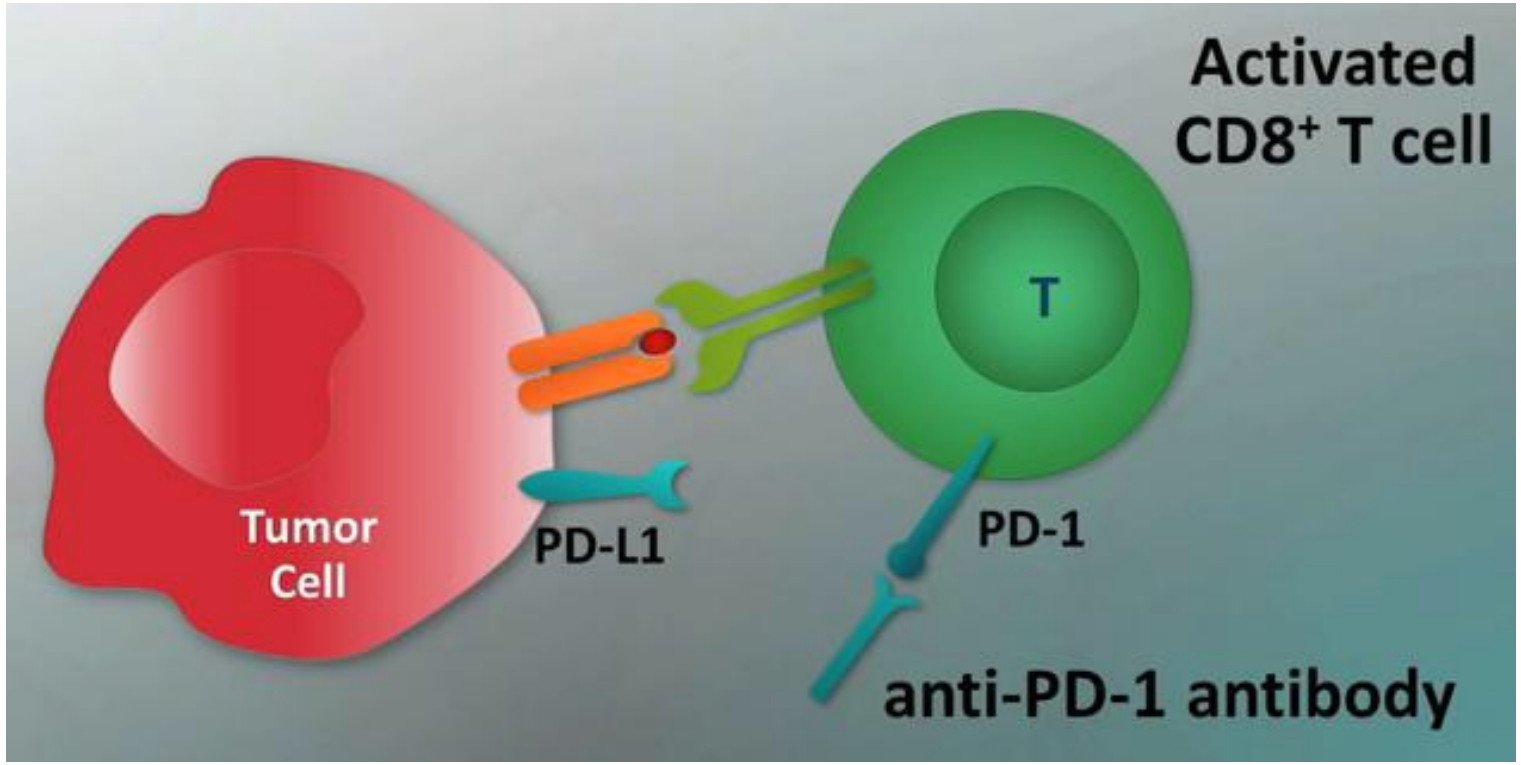
Biologisch mechanisme: PD(L)-1

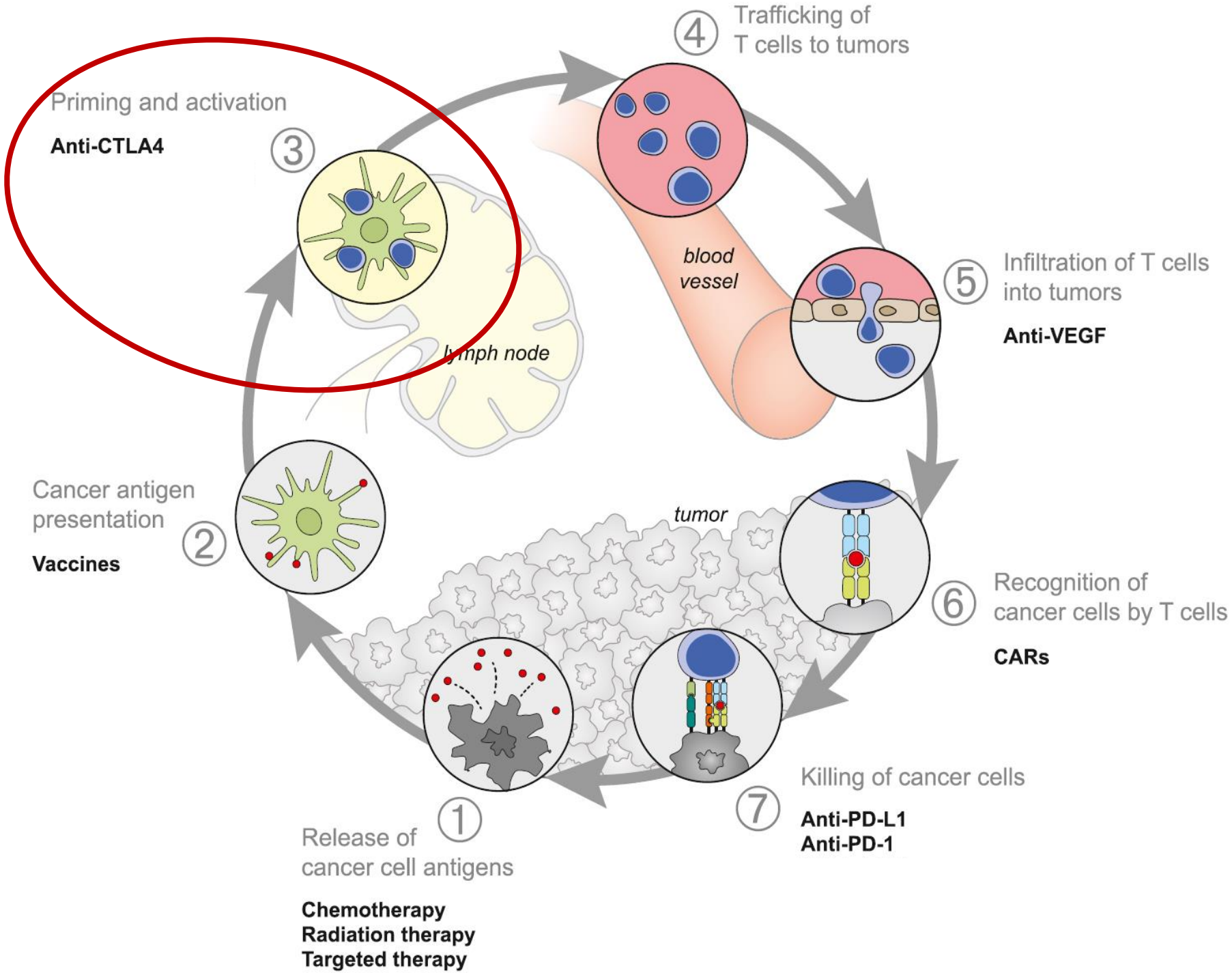




Biologisch mechanisme: PDL1







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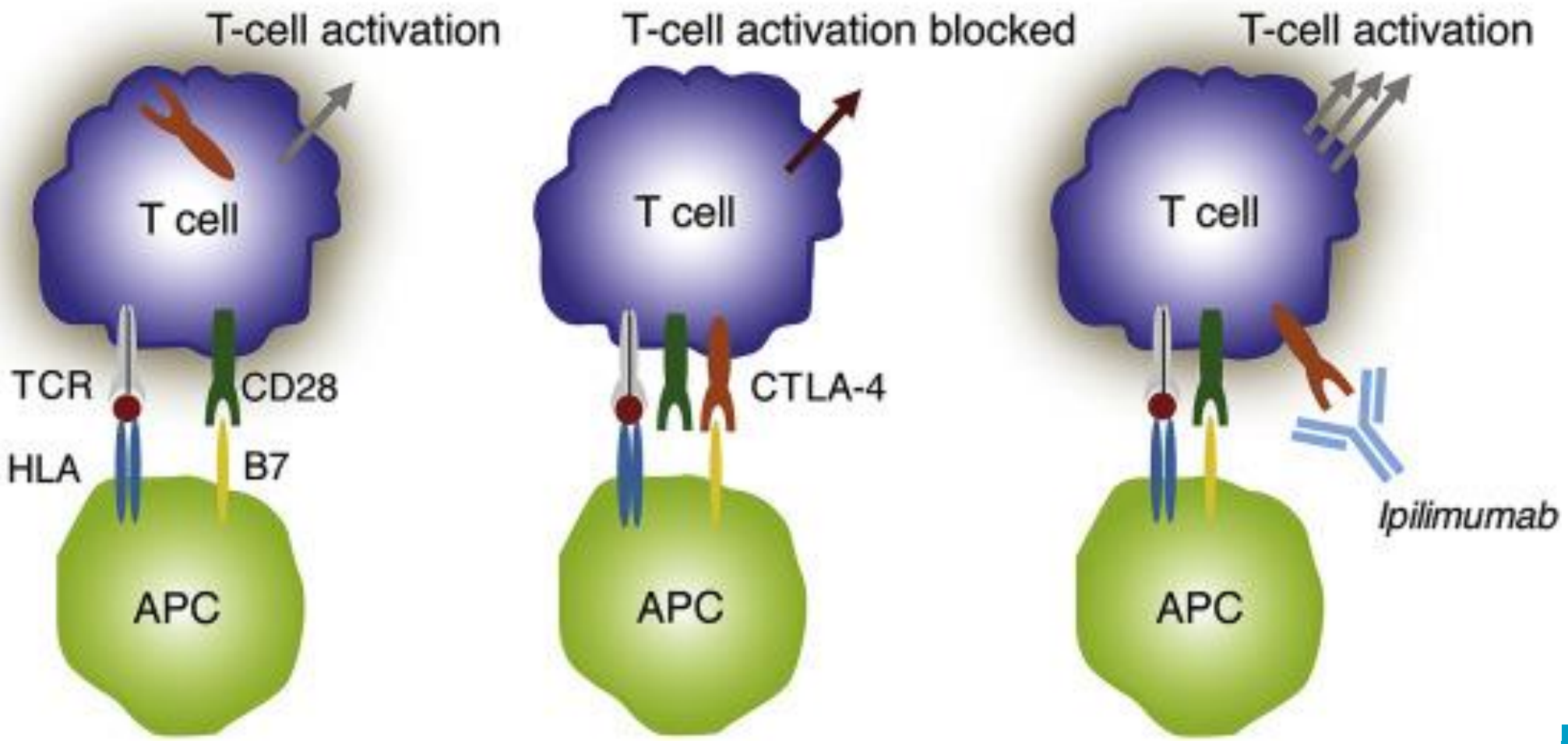
Biologisch mechanisme: CTLA-4



Buckbinder, 2016, Am J Clin Oncol

Hoelang immunotherapie?

1. Tot progressie
2. (ernstige) bijwerkingen
3. Na 2 jaar bij stabiele situatie

Sharma, Cell, 2017

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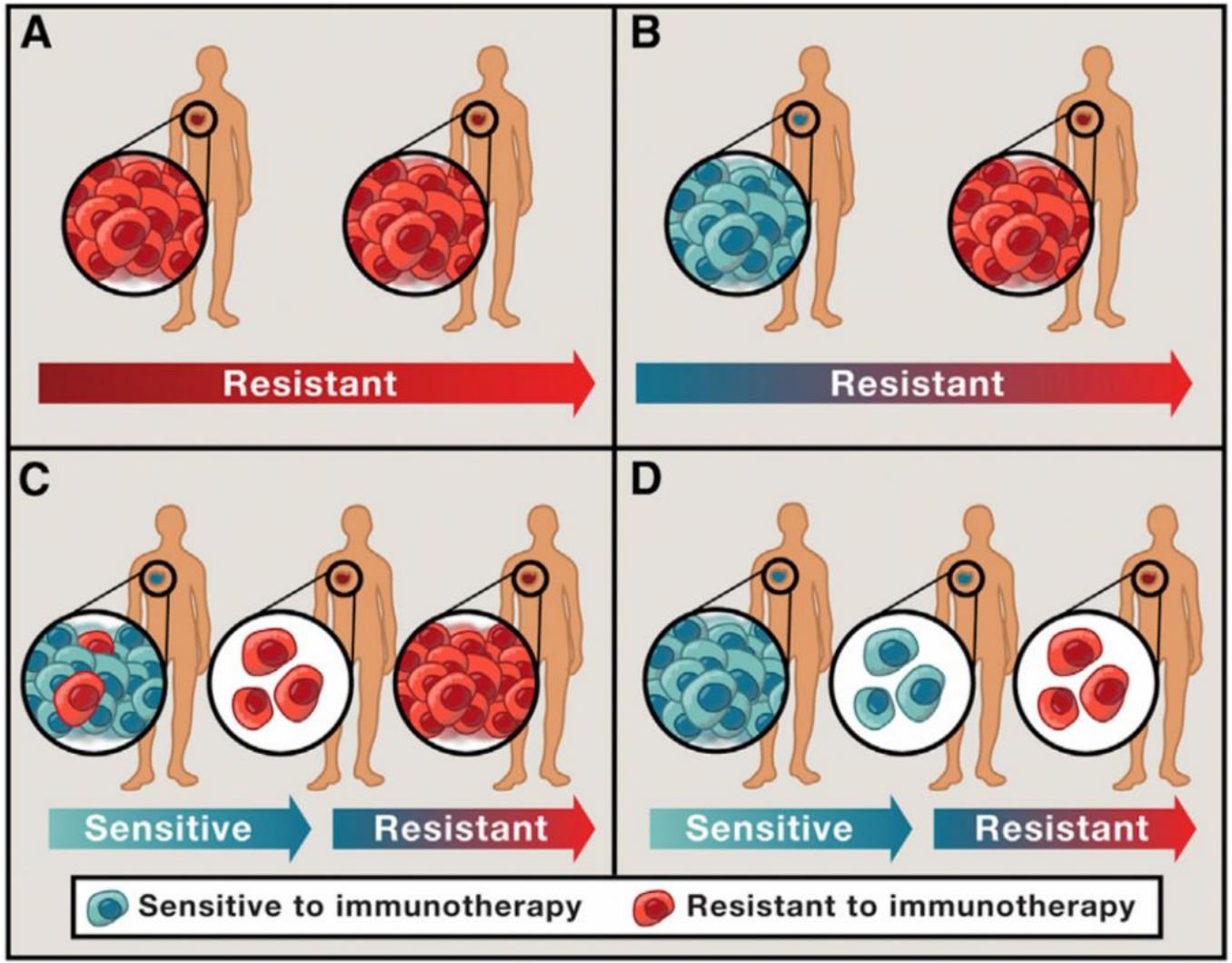
Resistentie tegen immunotherapie



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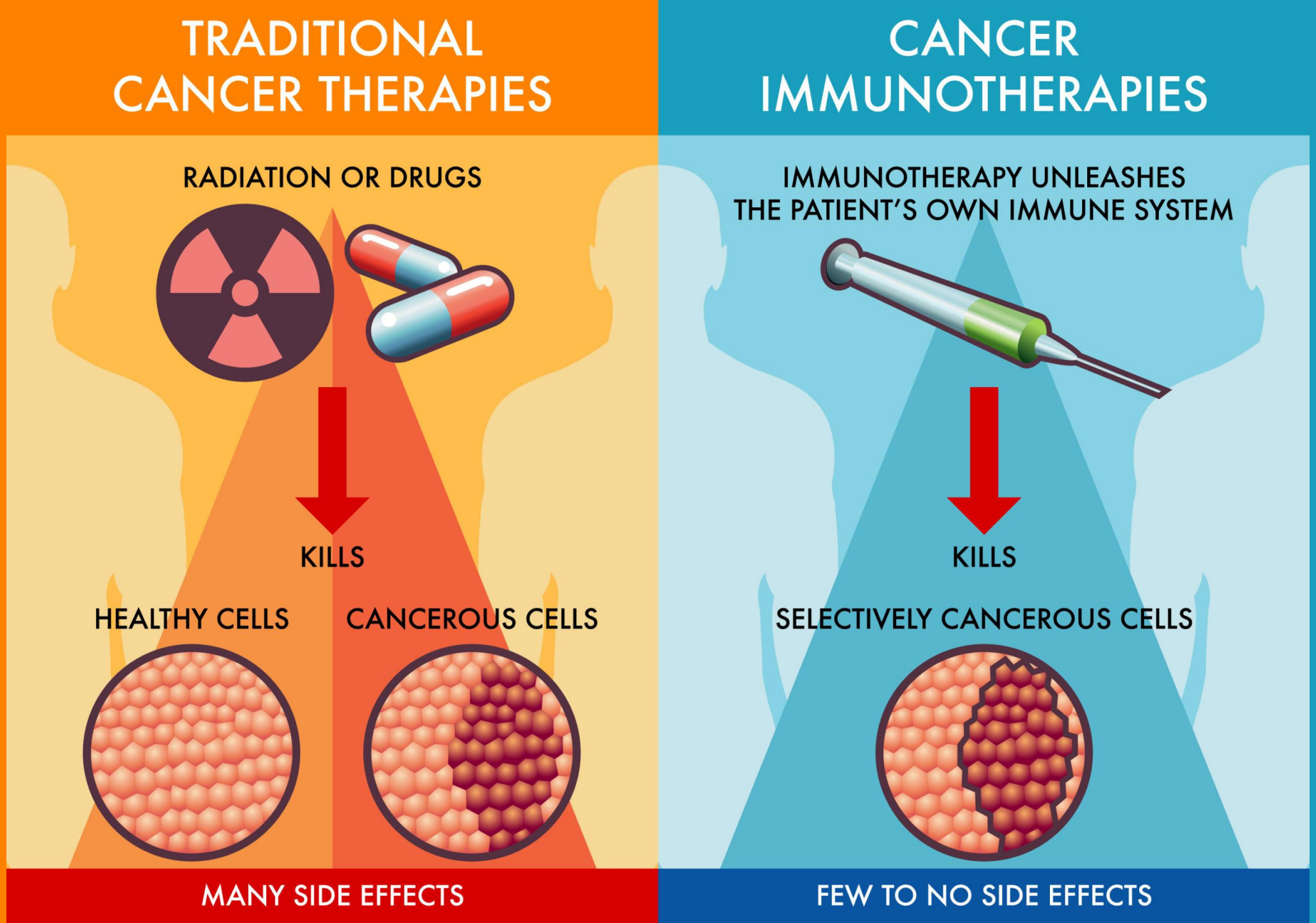
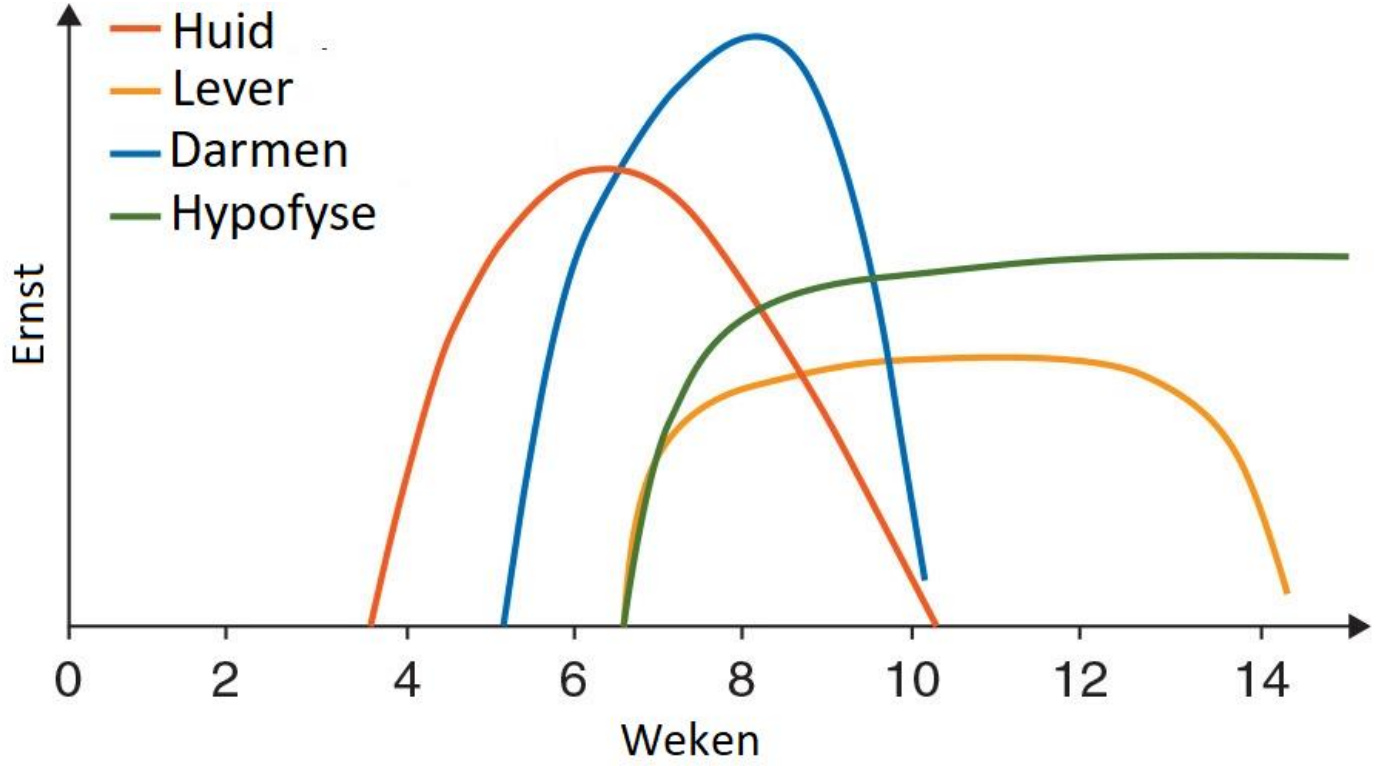

TRADITIONAL CANCER THERAPIES
RADIATION OR DRUGS
KILLS
HEALTHY CELLS
CANCEROUS CELLS
MANY SIDE EFFECTS
CANCER IMMUNOTHERAPIES
IMMUNOTHERAPY UNLEASHES THE PATIENT'S OWN IMMUNE SYSTEM
KILLS
SELECTIVELY CANCEROUS CELLS
FEW TO NO SIDE EFFECTS

Bijwerkingen

Ander patroon dan bij chemotherapie

Effect van medicijn vs immuun reactie tegen orgaan



ESMO

Dank voor uw aandacht!

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