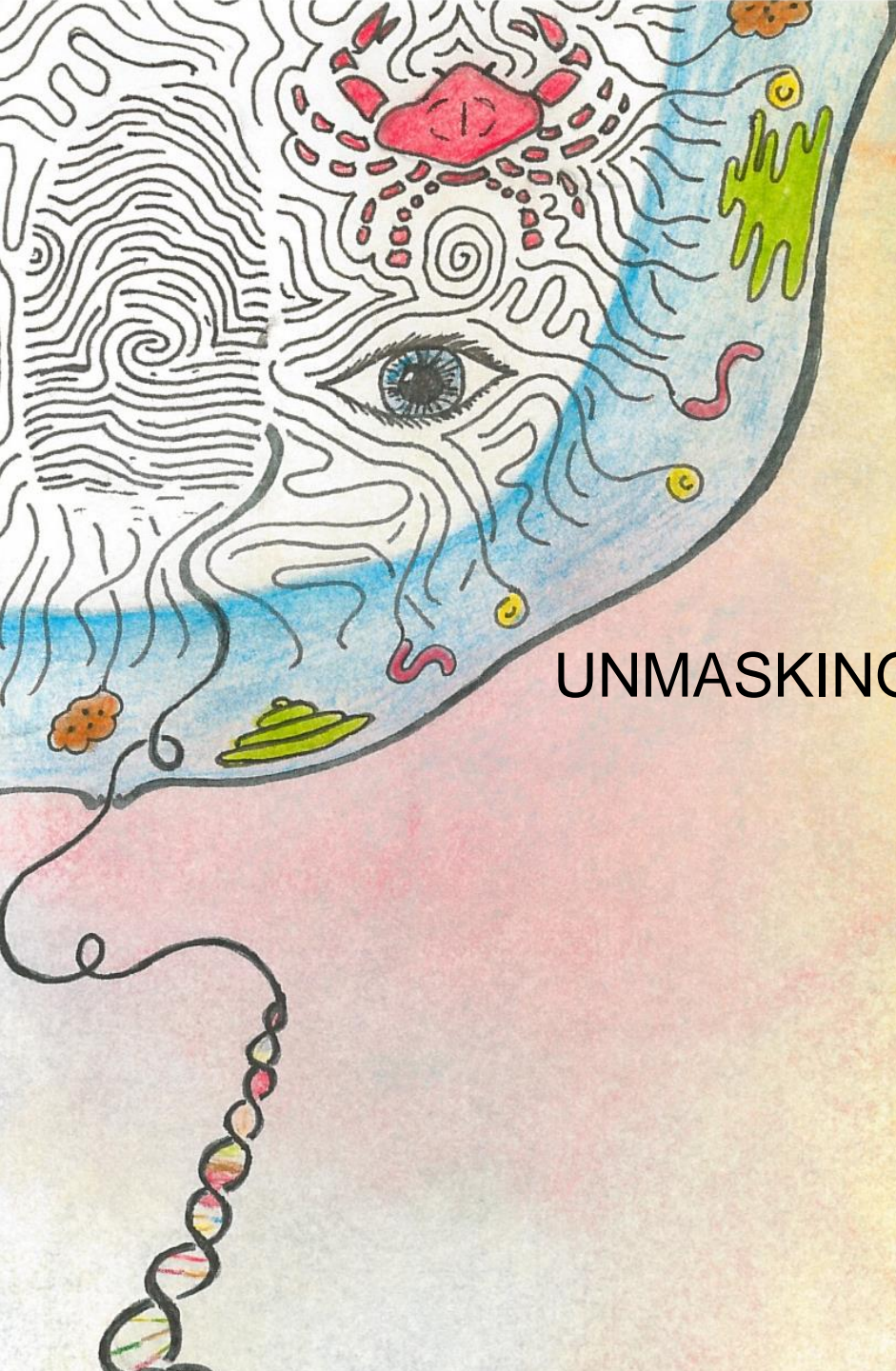


UNIVERSITY OF TWENTE.



UNMASKING CIRCULATING TUMOR CELLS

Joost Swennenhuis

PARANYMPHS

Arjan Tibbe



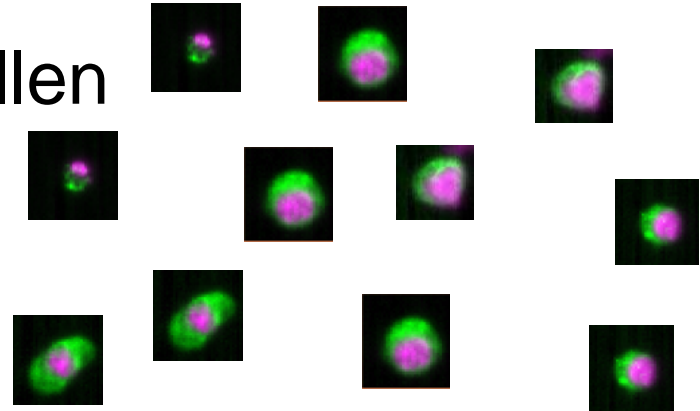
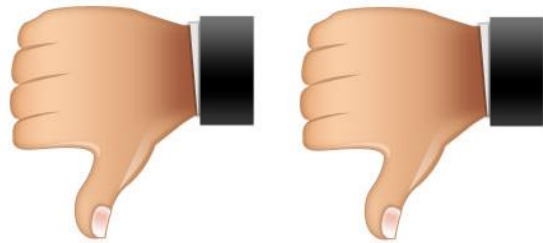
Frank van der Linden



1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

INHOUD

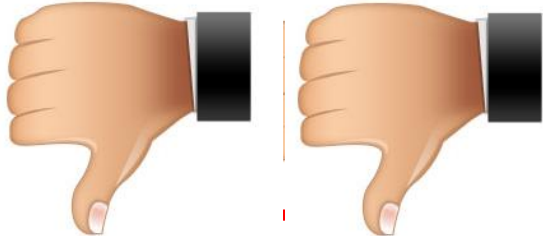
Circulerende Tumor Cellen



- 1. Circulerende Tumor Cellen
- 2. Isolatie van individuele cellen
- 3. Wat kunnen we met deze cellen?

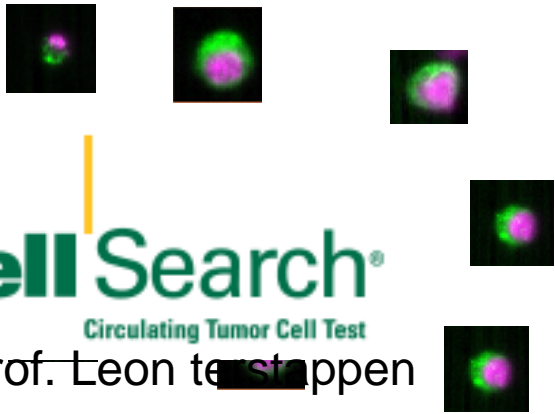
INHOUD

Circulerende Tumor Cellen



Cell Search[®]
Circulating Tumor Cell Test

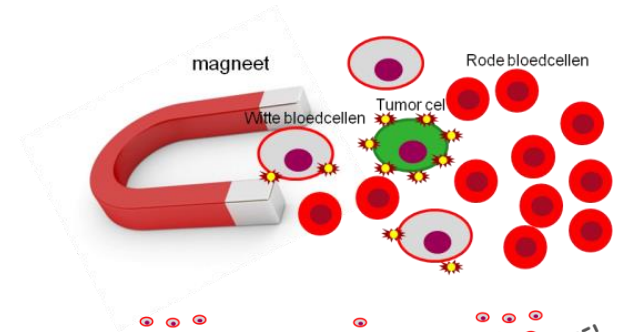
Prof. Leon te ~~stappen~~



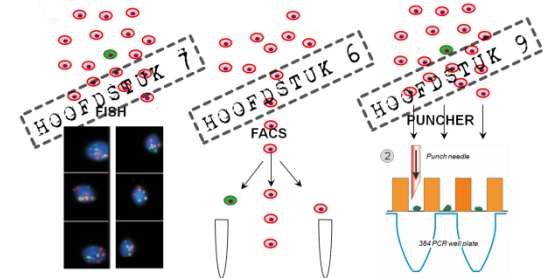
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

INHOUD

1 Circulerende tumor cellen



2 Isolatie van individuele cellen

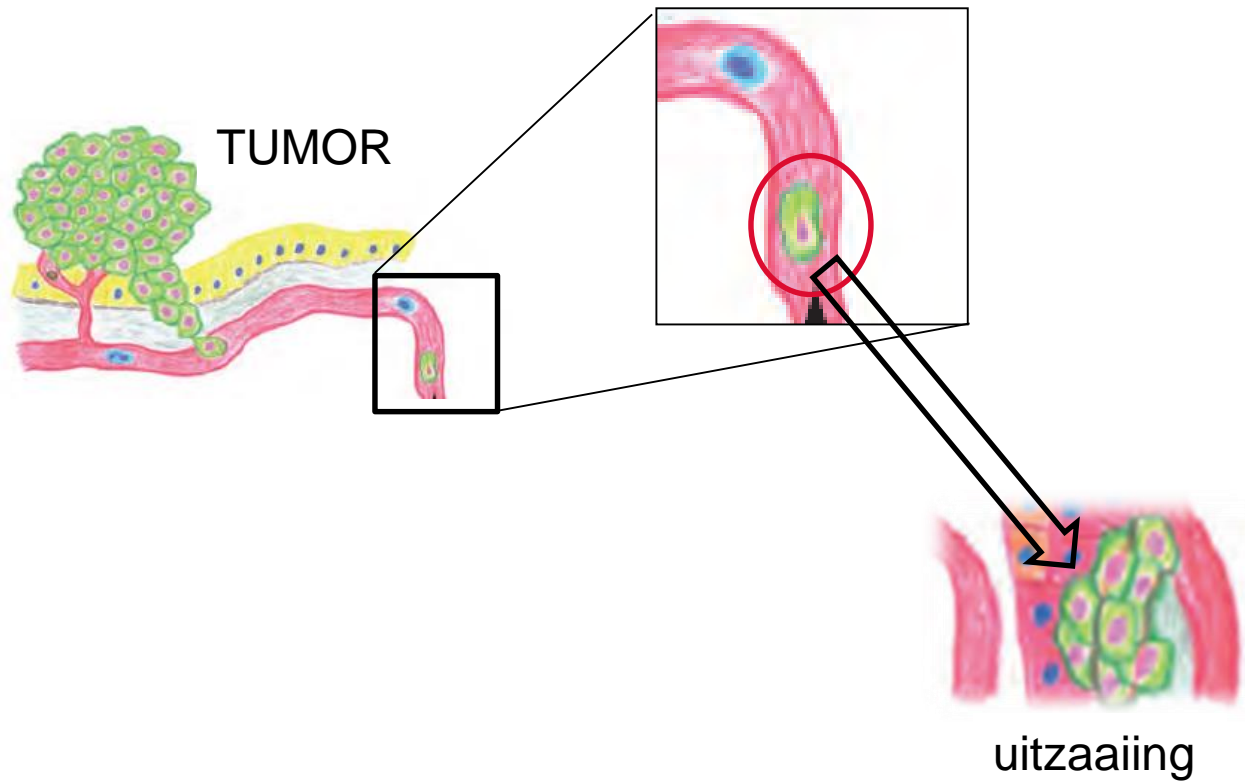


3 Wat kunnen we met deze cellen?



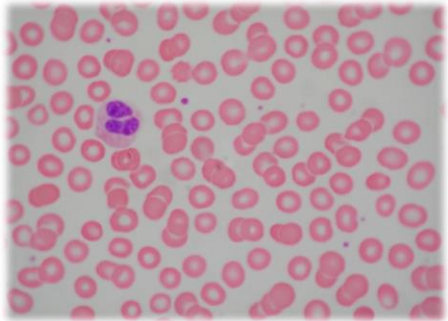
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

CIRCULERENDE TUMOR CELLEN



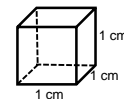
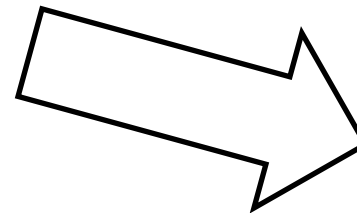
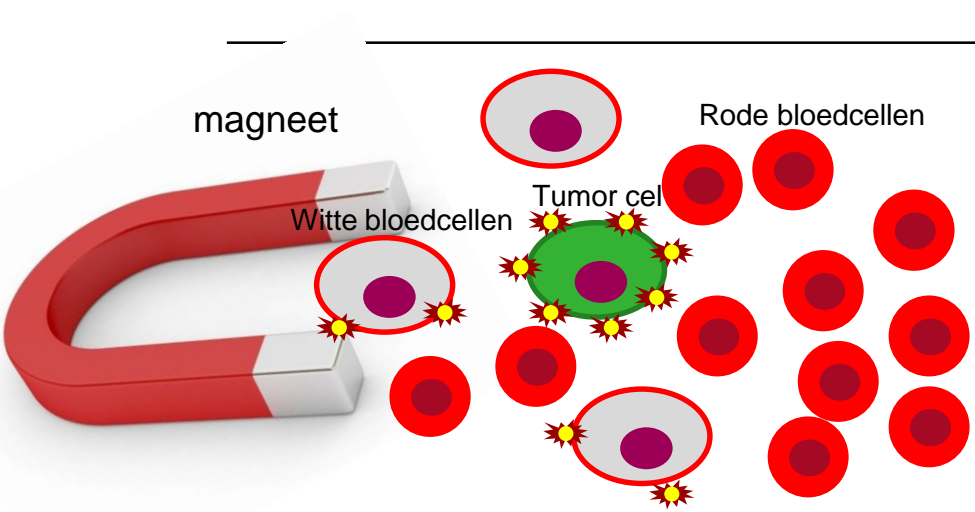
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

HOE WEINIG CTC'S ZITTEN IN HET BLOED



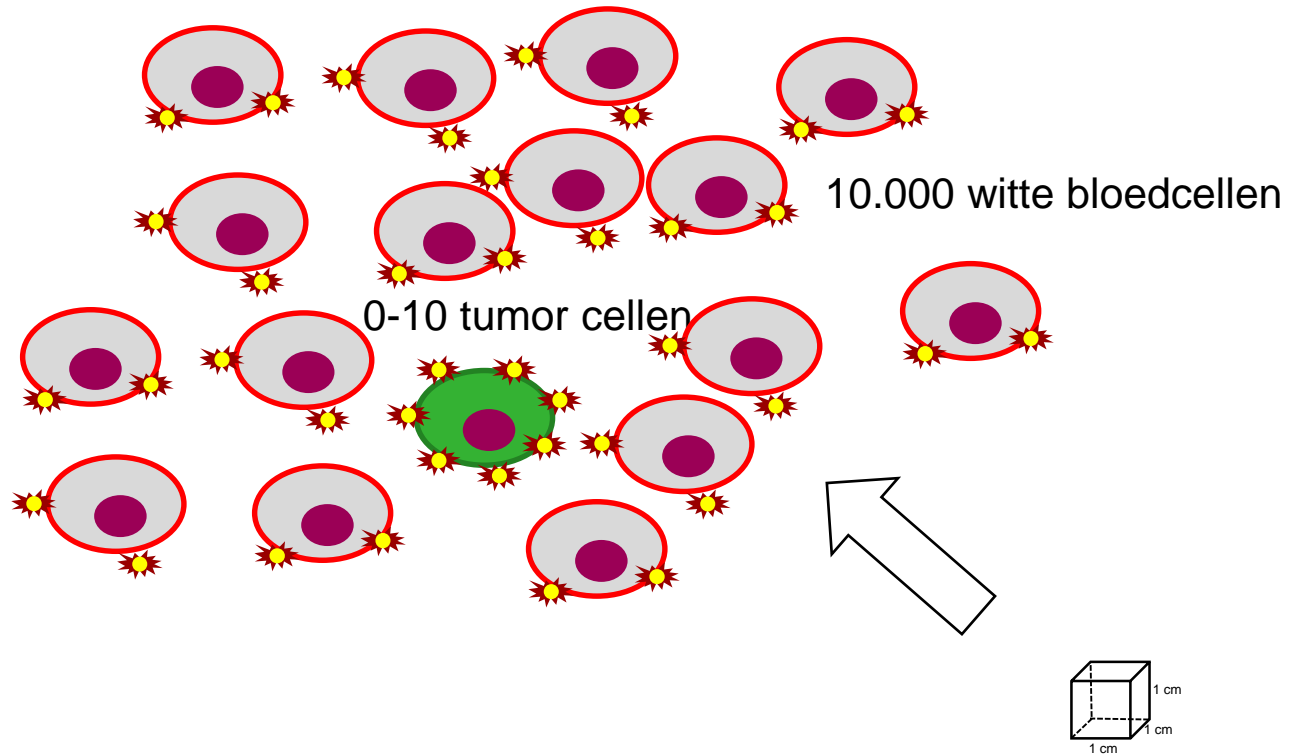
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

HOE VINDEN WE CTC



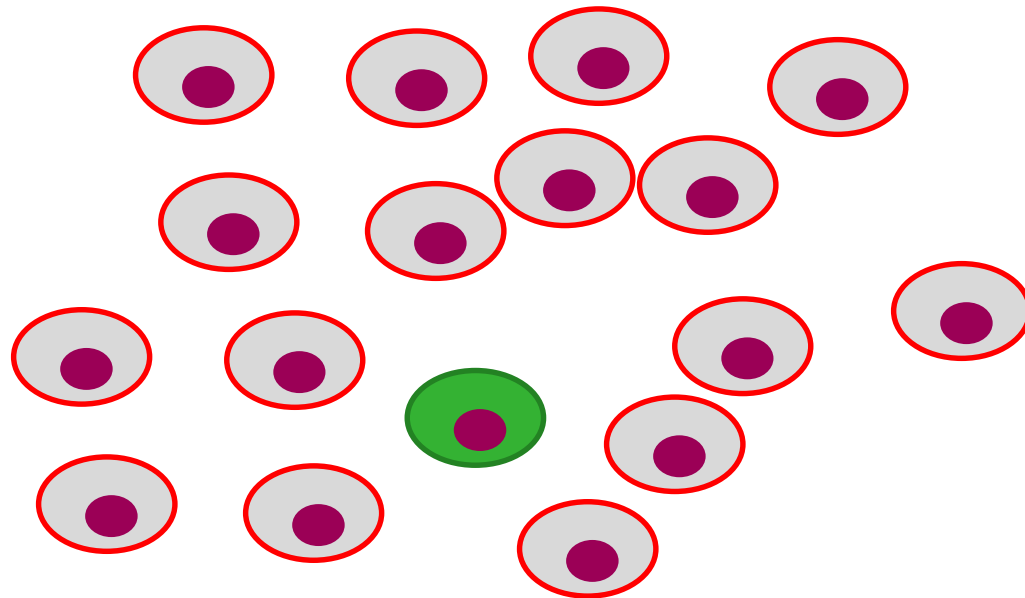
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

HOE VINDEN WE CTC



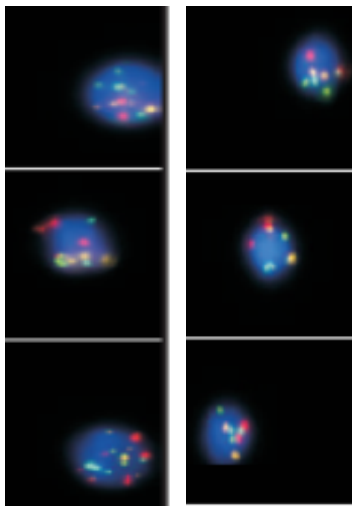
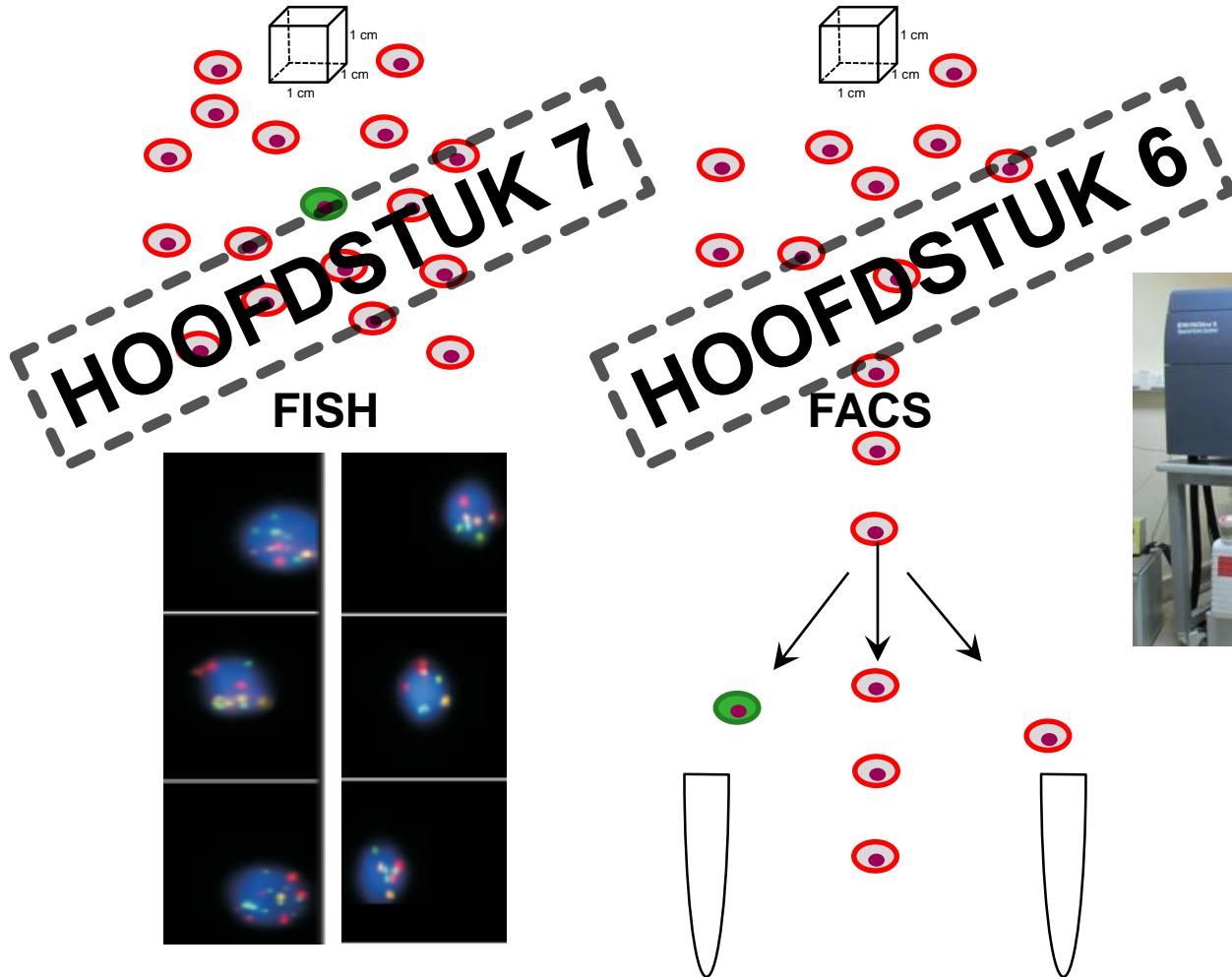
1. Circulerende Tumor Cellen
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HOE VINDEN WE CTC



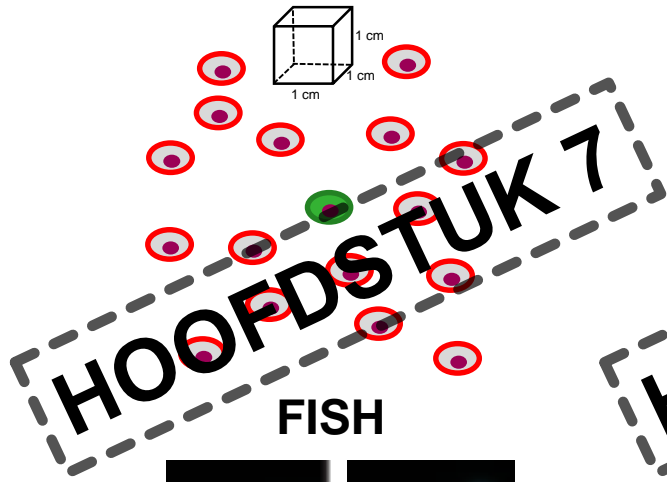
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

ISOLEREN VAN DE PURE CTC'S

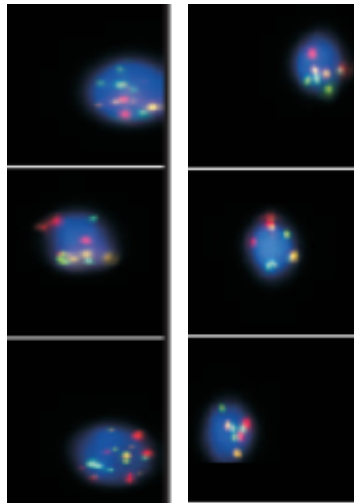


1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

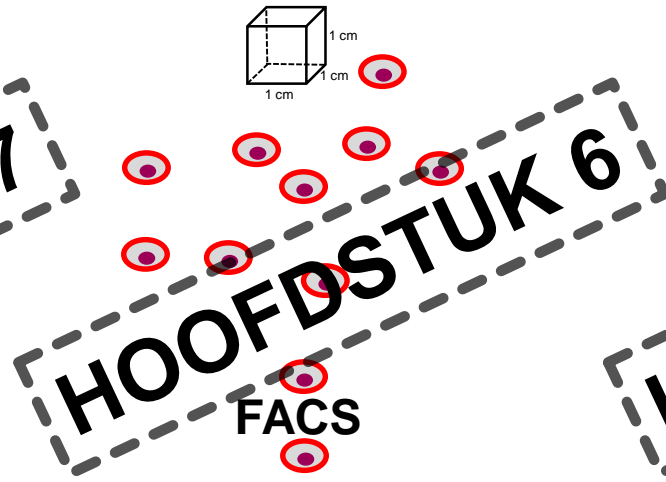
ISOLEREN VAN DE PURE CTC'S



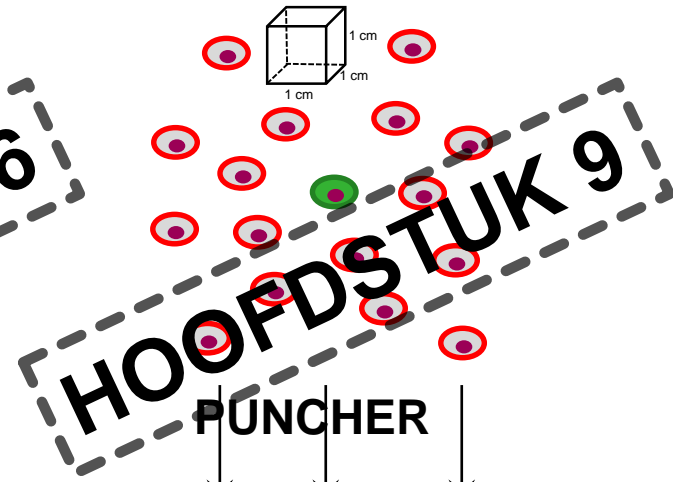
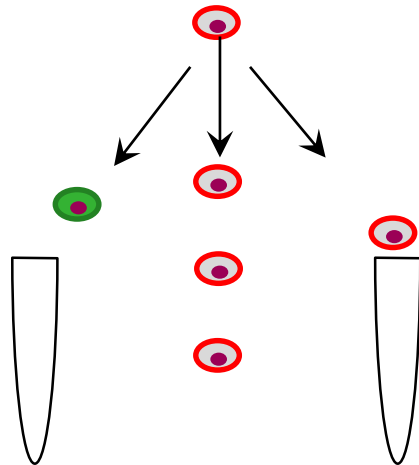
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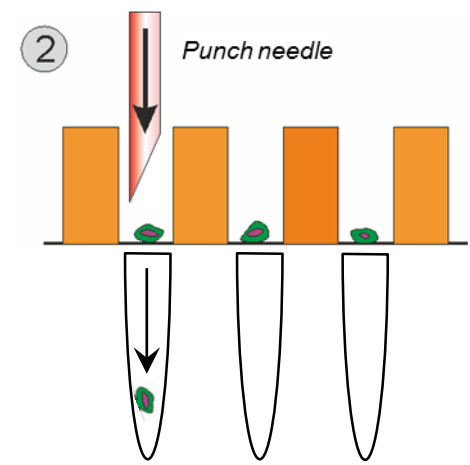
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FACS

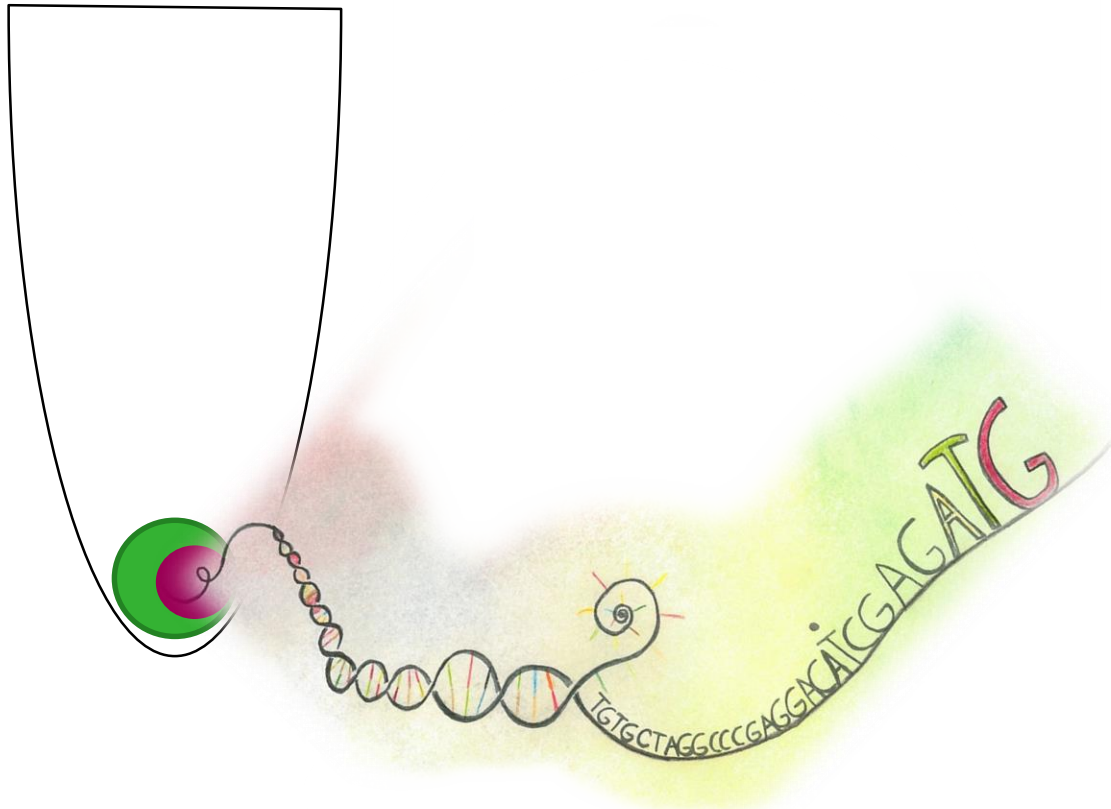


PUNCHER



1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

ANALYSE VAN ENKELE CTC'S



- 1. Circulerende Tumor Cellen
- 2. Isolatie van individuele cellen
- 3. Wat kunnen we met deze cellen?

DNA

1 cel  : 3.000.000.000 'Letters'



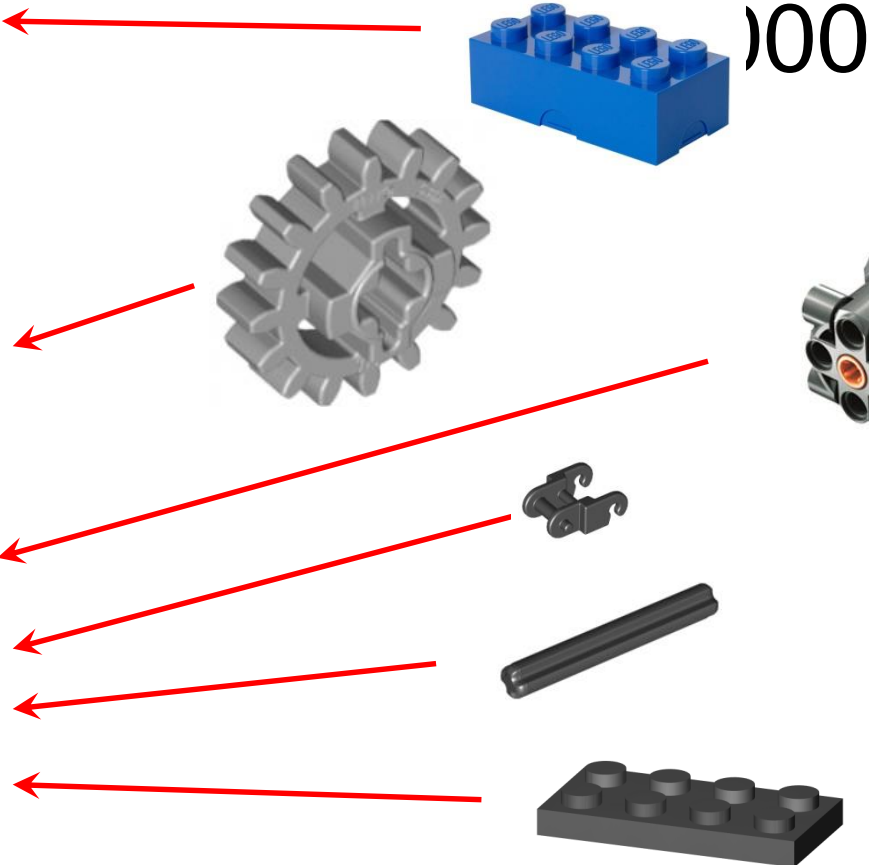
3.000.000.000 Letters
1000 X

GENEN

CODEREN VOOR EIWITTEN: DE BOUWSTENEN VAN CELLEN

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Gemaakt door Marius Swennenhuis

1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

GENEN EN KANKER

```

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```

DNA

**Waardoor zij zelfs bejaard nog helder dacht.
Op hoge leeftijd ook niet dementeerde,
maar oud van dagen nog filosofeerde,
is met haar DNA in kaart gebracht.**

**Elk spoor van twijfel is daarmee verdwenen
Het zat bij Hendrikje echt in de genen.**

Schrijver: Gezienus Omvlee 15-10-2011

1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

GENE EN KANKER

```

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```

DNA

Waardoor zij zelfs **bejaard nog helder dacht.**

Op hoge **leeftijd ook niet dementeerde **maar** oud van dagen nog filosofeerde, is met **haar** DNA in kaart gebracht.**

Elk **spoor van twijfel is daarmee verdwenen**

Het zat bij Hendrikje echt in de **genen.**

Schrijver: Gezienus Omvlee 15-10-2011

GENEN EN KANKER MUTATIES



1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?



```
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```

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Schrijver: Gezienus Omvlee 15-10-2011

1. Circulerende Tumor Cellen
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GENE EN KANKER

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DNA
 Wa... is bejard nog... dacht.
 ...niet den...
 ...n nog filos...
 ...hart gel...
 van twifel...
 Hendrikje...
 en.



1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

GENEN EN KANKER

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Gen voor celdeling DNA reparatie gen

behandeld **zacht**

Waardoor zij zelfs **bejaard** nog helder **dacht**.

Op hoge leeftijd ook niet dementeerde
 maar oud van dagen nog filosofeerde,
 is met haar DNA in kaart gebracht.

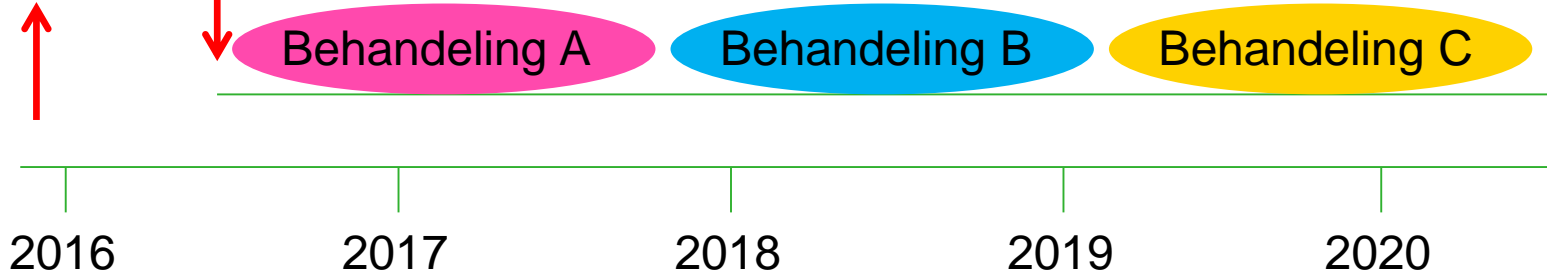
Elk spoor van twijfel is daarmee verdwenen
 Het zat bij Hendrikje echt in de **g**enen.
benen.

Schrijver: Gezienus Omvlee 15-10-2011

Gen voor celdood

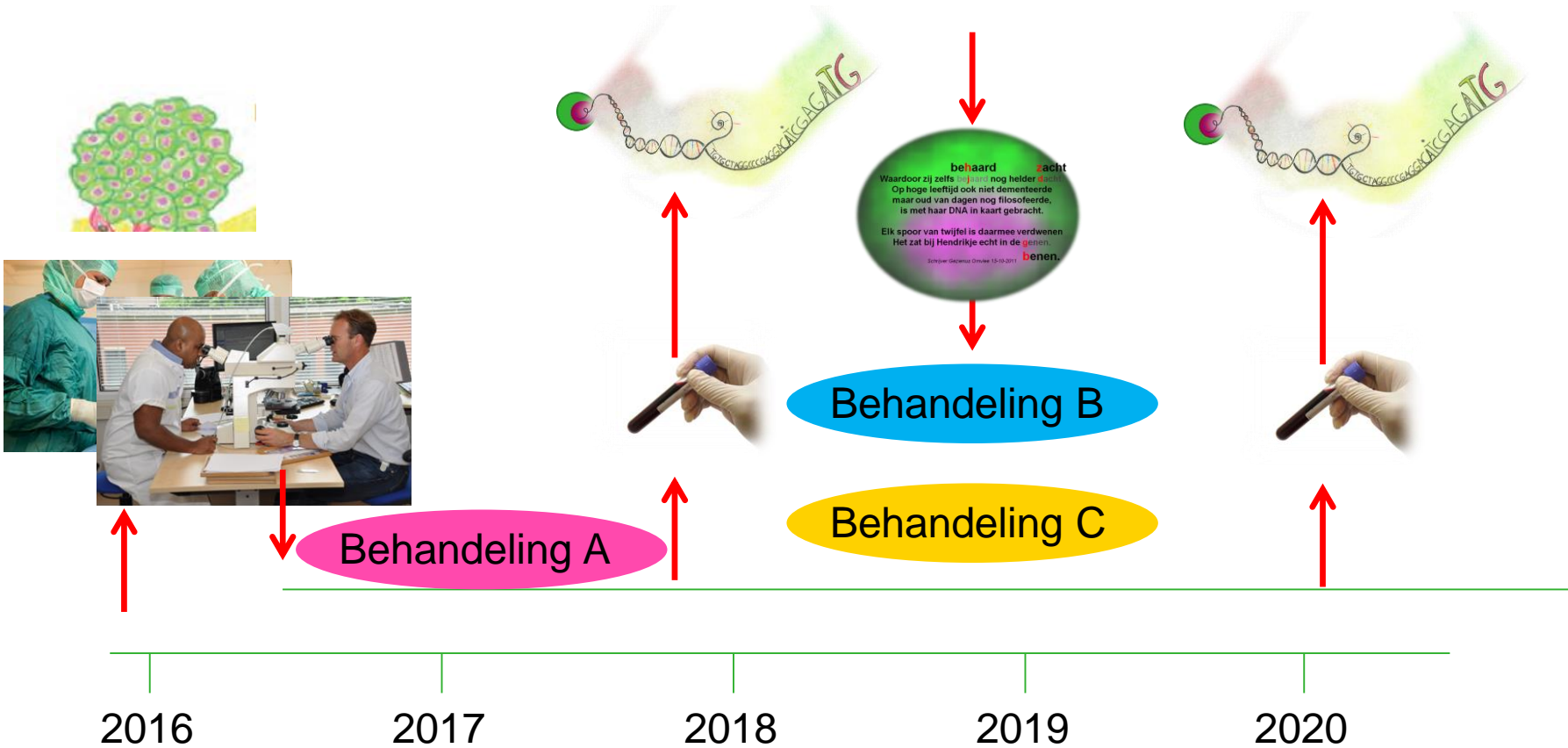
1. Circulerende Tumor Cellen
2. Isolatie van individuele cellen
3. Wat kunnen we met deze cellen?

BEHANDELING NU



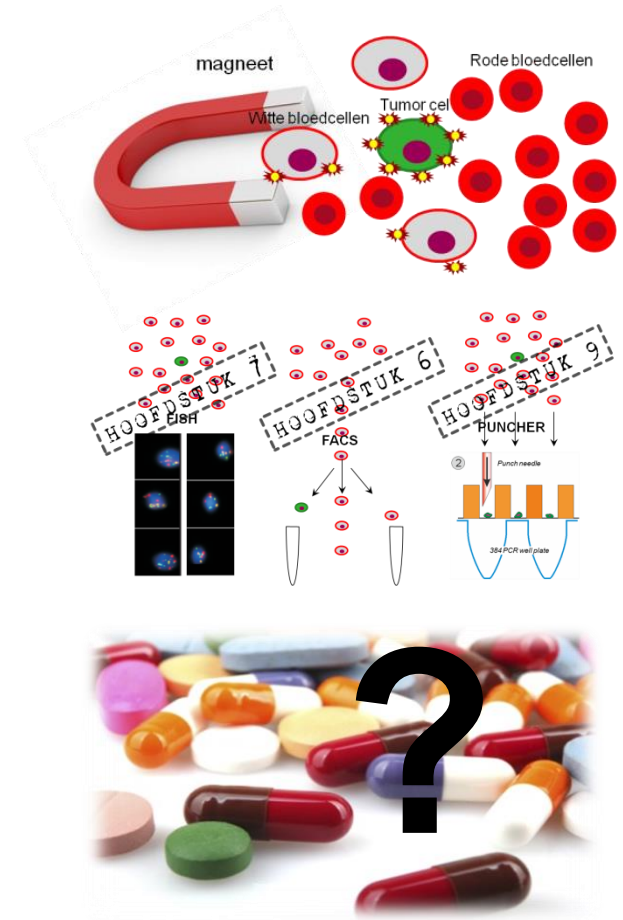
1. Circulerende Tumor Cellen
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BEHANDELING GELEID DOOR CIRCULERENDE TUMOR CELLEN

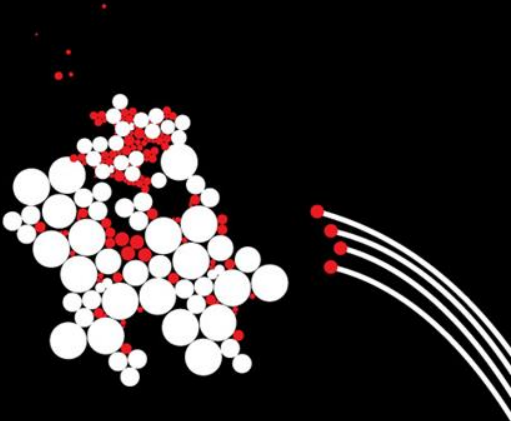


AFRONDING

- 1 Circulerende Tumor Cellen kunnen met magnetische deeltjes worden geïsoleerd uit bloed.
- 2 Verschillende manieren van cel isolatie en cel analyse zijn onderzocht.
- 3 In de Circulerende Tumor Cellen kan in de toekomst worden afgelezen welke medicatie op welk moment kan worden gegeven.



UNIVERSITY OF TWENTE.



THANK YOU

