



Aids Fonds

High-risk high-gain grantees
Elevator pitches

nchiv

HIV

A costimulatory power-boost for HIV-specific T-cells through GITR activation

M. Fernanda Pascutti

Sanquin Research



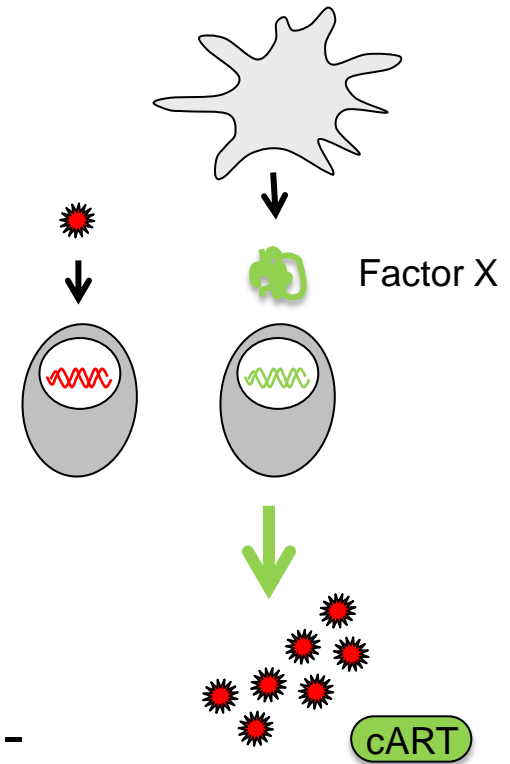
Development of a natural drug
"mimic" derived from dendritic
cells that activate latent HIV-1
and potentially could cure
infected patients

Thijs van Montfort
AMC-UvA



Eradication of the latent HIV-1 reservoir

- Latent HIV-1 reservoirs
 - Are not recognized by the host immune response
 - Can not be eradicated with cART
- Cure patients
 - Activate the reservoir “shock”
 - Cell death
 - Cytotoxic killing of infected cells
- Natural anti-latency factor
 - Secreted by dendritic cells
- Aim of project:
 - Develop a recombinant mimic of the anti-latency protein



PREVENT-HIV: PeeR-Empowered Voluntary Extended Network Testing for HIV

Eline op de Coul
RIVM



Peer empowered Social Network Testing (SNT) for EM-MSM

Background

- Ethnic minority (EM) MSM face higher HIV rates, more late presentation, and more (self)stigma
- Stronger efforts needed to test hard-to-reach EM-MSM at risk

Research plan

- Main question: Is SNT for HIV feasible and acceptable among EM-MSM?
- Recruiting MSM peers with EM-MSM in their social networks via STI clinics & HIV treatment clinics
- Distributing 5 free oral HIV tests via peers to their EM-MSM network friends at risk
- Supporting peers with peer coordinator and e-learning program

Possible impact if successful

- Extending provider-based services at clinics with SNT and integrating SNT with online interventions
- Openness about HIV and reducing stigma
- Reaching the 90-90-90 target for EM-MSM

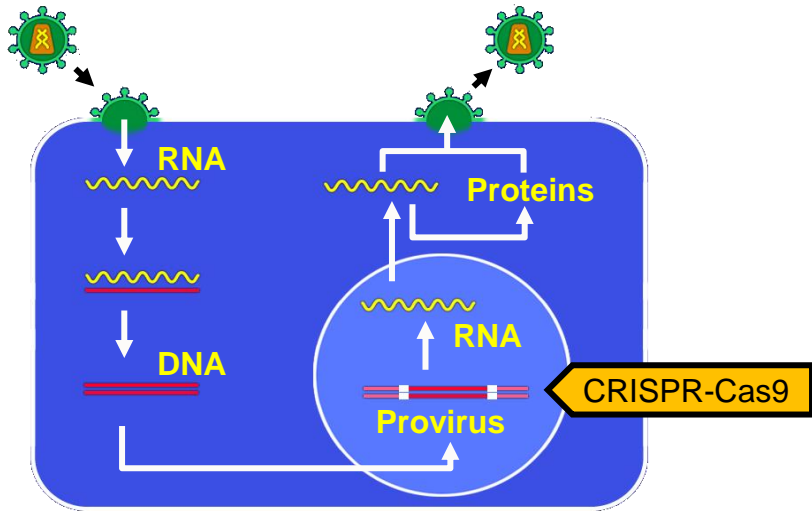
A novel approach to cure HIV-1

Atze Das

AMC-UvA



Can the CRISPR-Cas9 system be used to cure HIV-1 infected cells?



ART does not cure HIV-1 infected patient

DNA can be targeted with CRISPR-Cas9 system

- *Cas9 nuclease (dsDNA) + guide RNA (specificity)*

CRISPR-Cas9 targeting of HIV-1

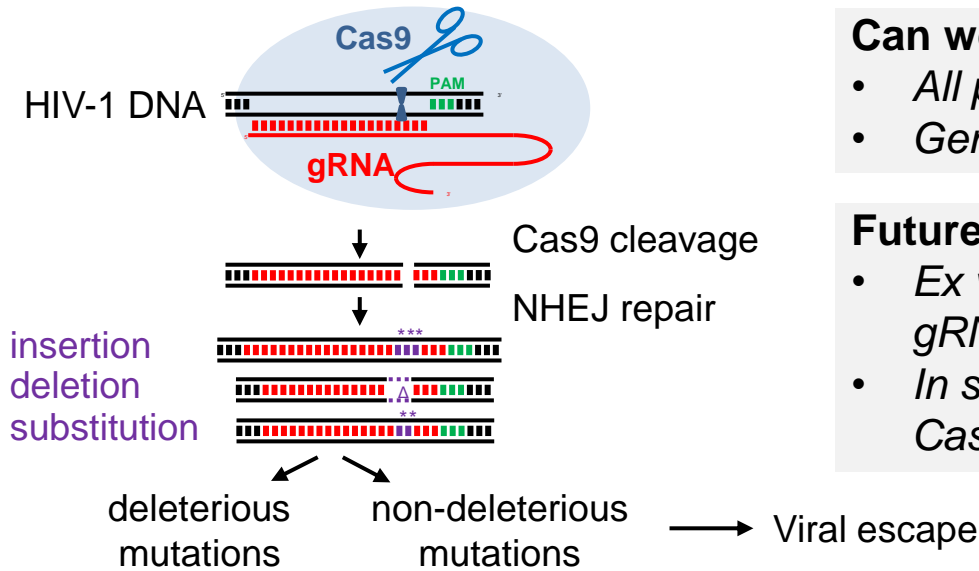
- *Powerful inhibition of HIV-1*
- *Virus escapes from mono-gRNA therapy*
- *but not from dual-gRNA therapy (conserved targets)*

Can we cure HIV-1 infected cells?

- *All proviral genomes inactivated?*
- *Genotype and Phenotype assays*

Future therapy

- *Ex vivo gene therapy: harness cells with Cas9 + gRNAs → durable effect; single treatment?*
- *In situ delivery: treat cells in latent reservoir with Cas9 + gRNAs*



New, less cumbersome
screening method for anal
(pre)cancer, based on DNA
changes, in HIV+ men who have
sex with men

Olivier Richel

AMC-UvA


Who will get anal cancer?



SOLUTION:

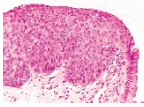
↑

Methylation analysis on anal swabs



↑

Methylation analysis on biopsies



→ **Less invasive HRA**

→ **Less over-treatment**

Improve quality of life and reduce costs



The FIND study: fine-needle biopsies to detect the hidden HIV reservoirs in hard-to-reach tissue compartments of well-controlled and uncontrolled HIV-patients

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