

In Vivo Excision of HIV-1 Provirus by saCas9 and Multiplex Single-Guide RNAs in Animal Models

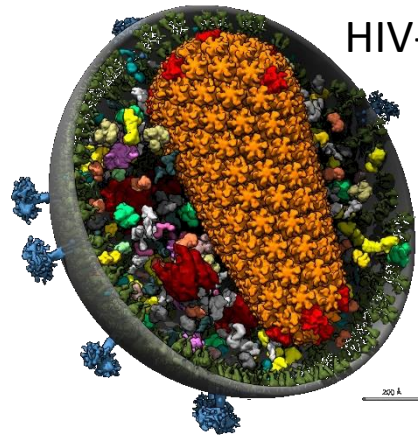
Chaoran Yin,^{1,6} Ting Zhang,^{1,6} Xiyong Qu,^{2,6} Yonggang Zhang,¹ Raj Putatunda,¹ Xiao Xiao,¹ Fang Li,¹ Weidong Xiao,³ Huaqing Zhao,⁴ Shen Dai,¹ Xuebin Qin,¹ Xianming Mo,⁵ Won-Bin Young,² Kamel Khalili,¹ and Wenhui Hu¹

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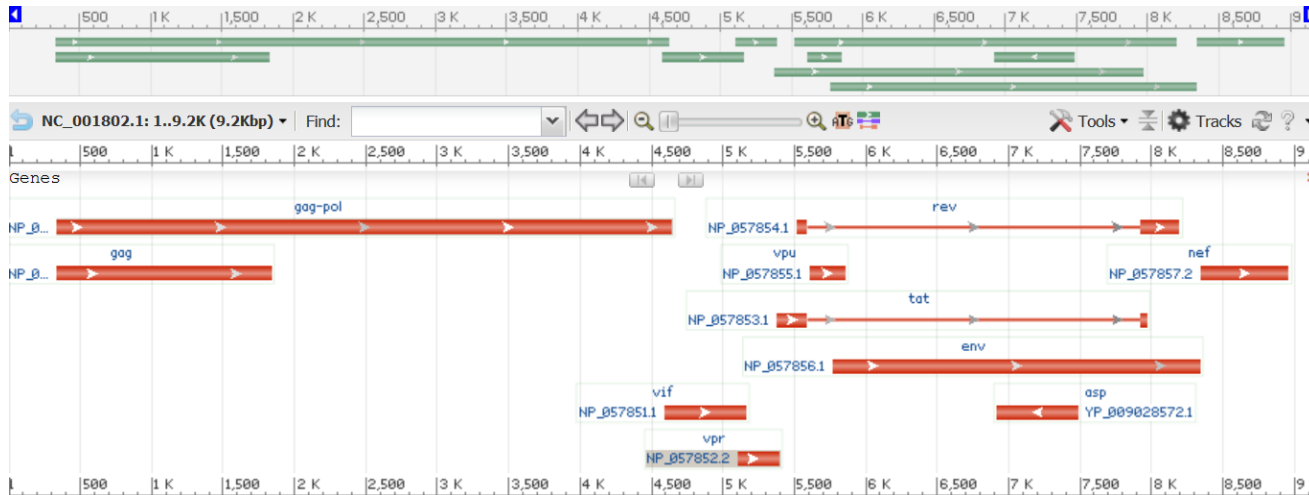
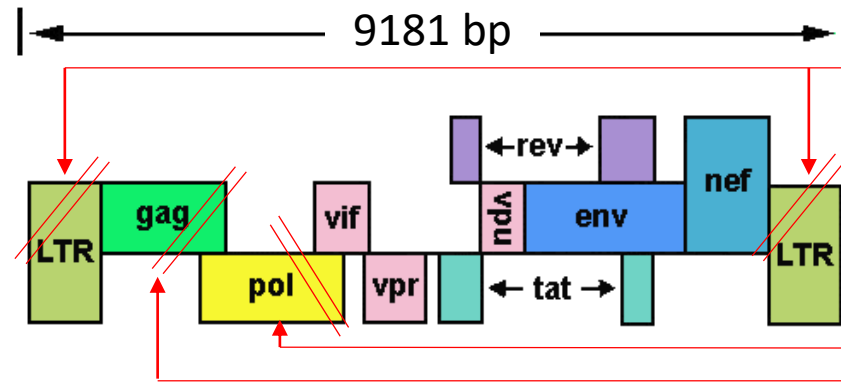
2017. 06. 01

Kovács Árpád Ferenc

ANYAG ÉS MÓDSZER (1)



HIV-1 vírus



CRISPR/ saCas9

1
LTR sgRNS

B
Pol sgRNS

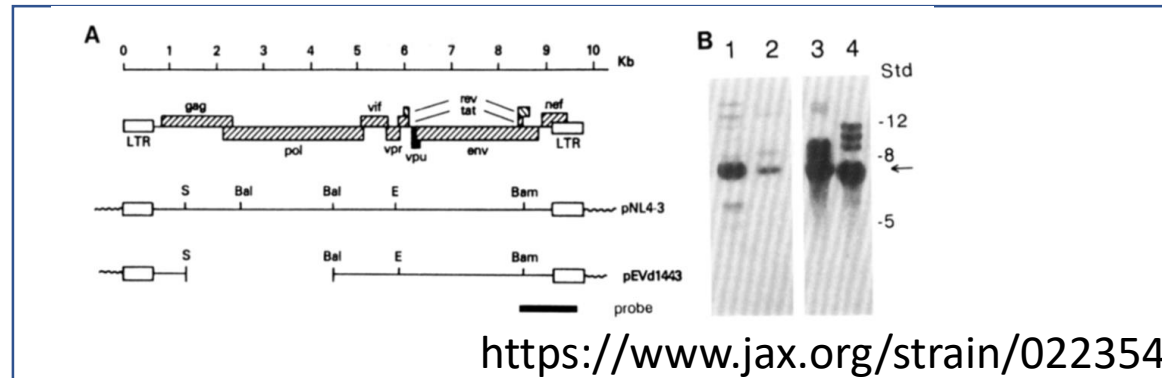
A
Gag sgRNS

sgRNS/saCas9 duplex hossza: 4969 kb

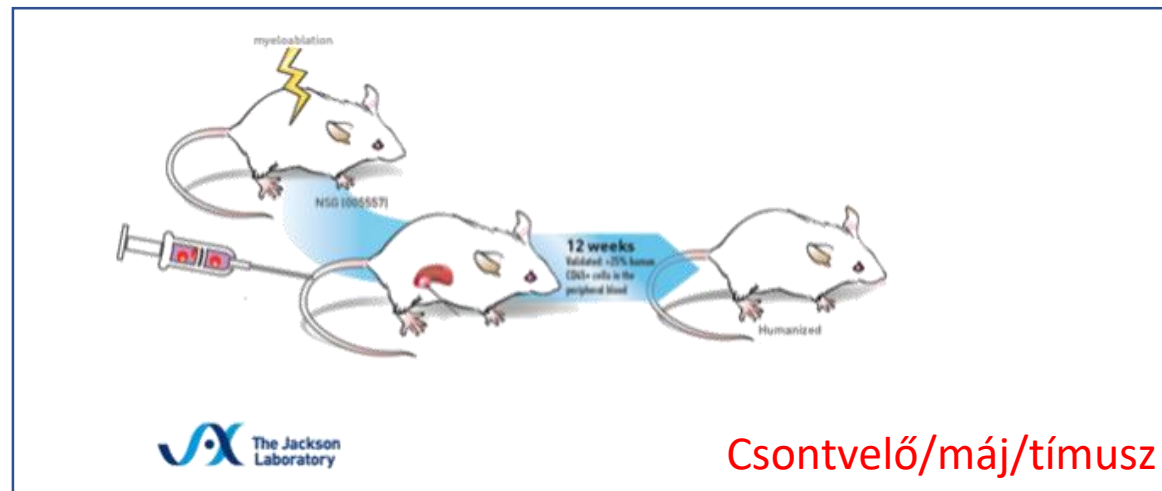
sgRNS/saCas9 kvadruplex hossza: 5716 kb

AAV-DJ/8 szerotípus

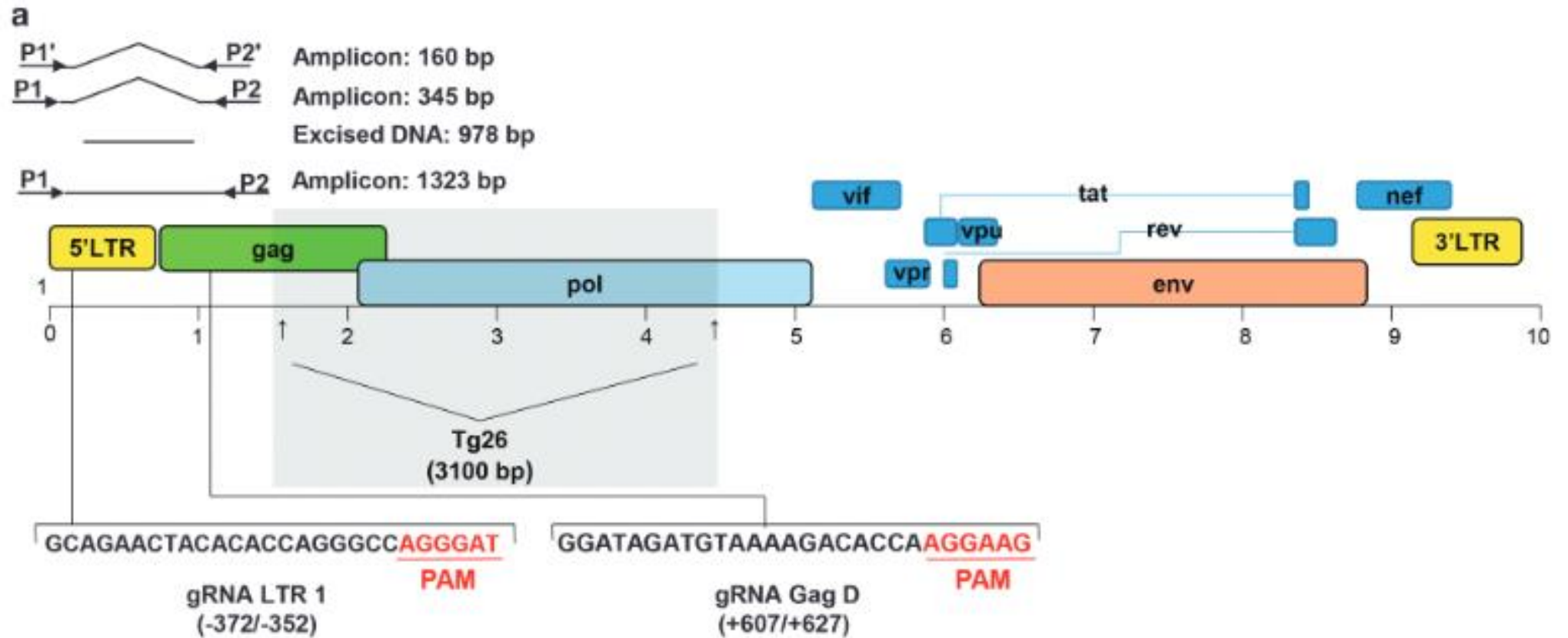
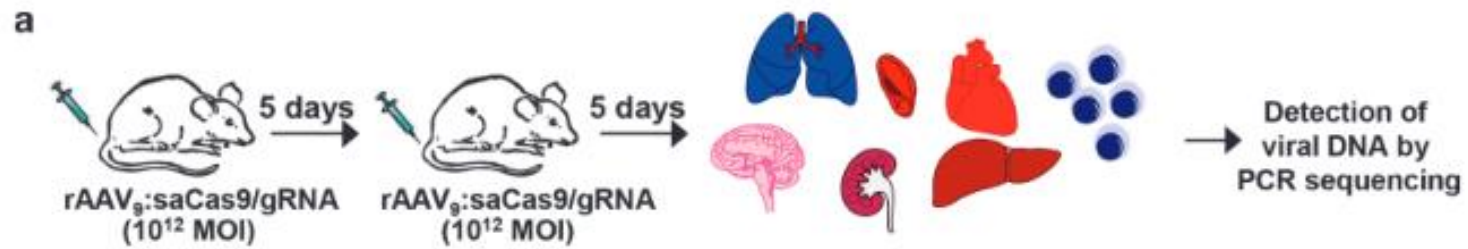
ANYAG ÉS MÓDSZER (2)



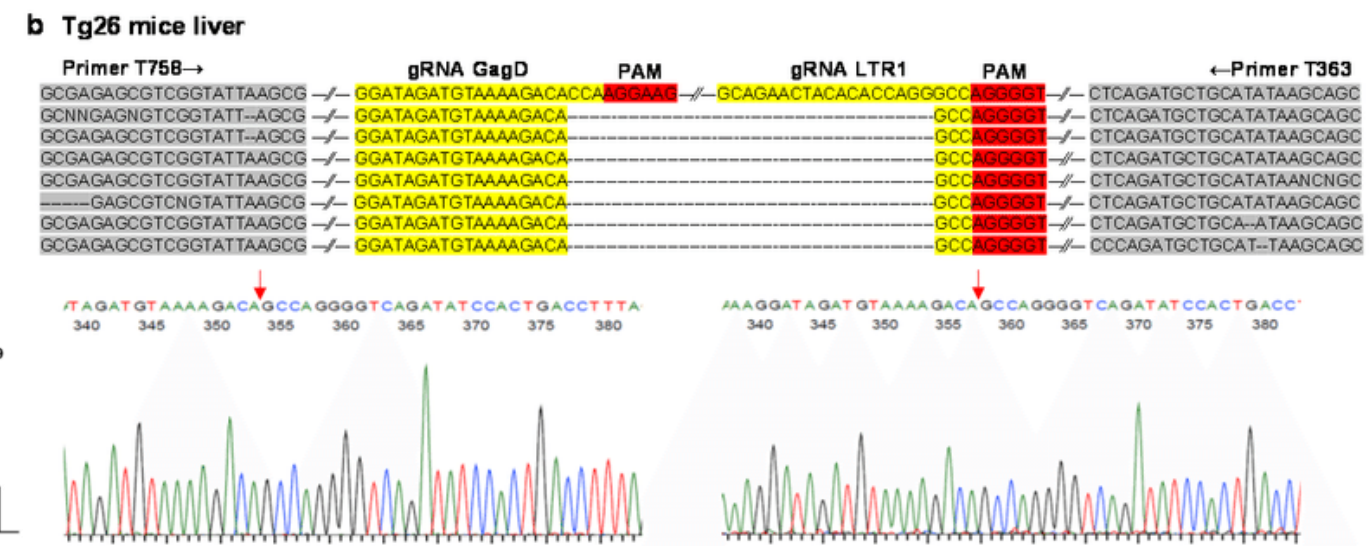
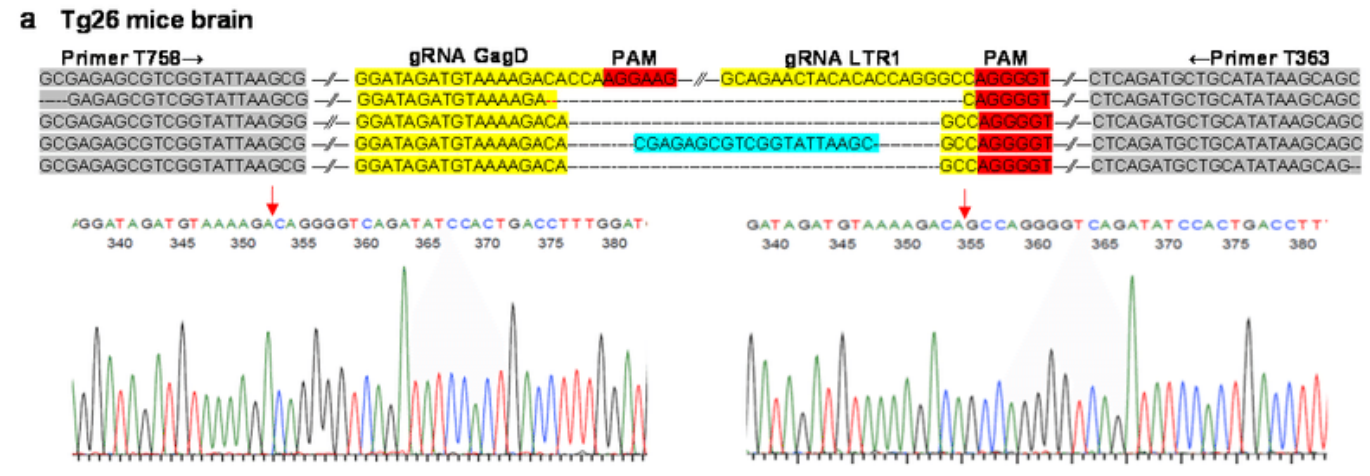
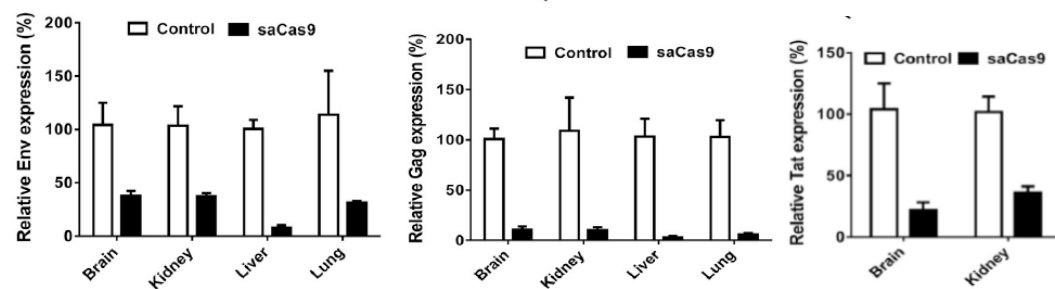
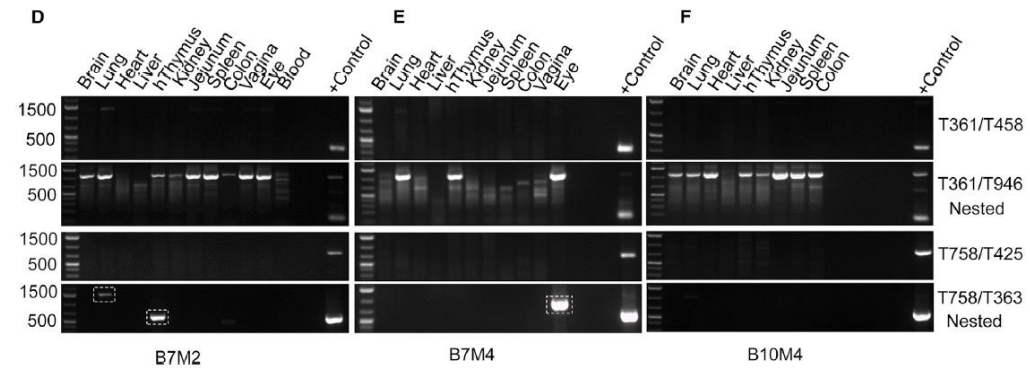
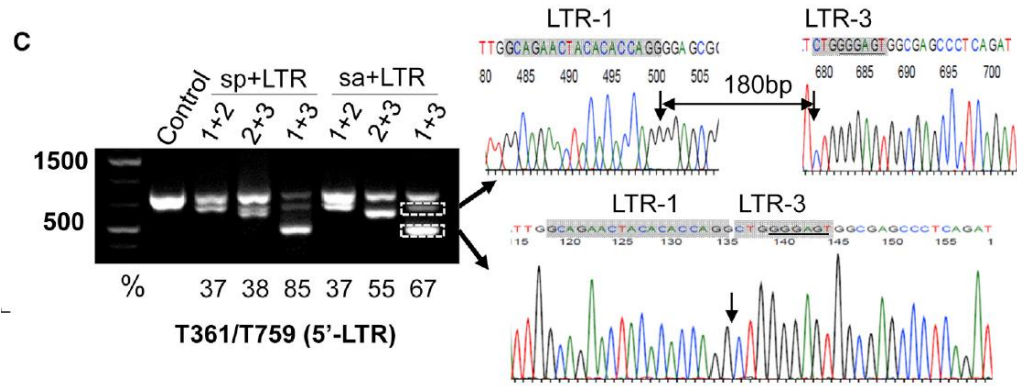
- Tg26 egér
- NCr egér **Tímusz nélküli** Crl:NU(NCr)-Foxn1^{nu}
- Humanizált BLT egér



ANYAG ÉS MÓDSZER (3)



EREDMÉNYEK (1)



EREDMÉNYEK (2)

A

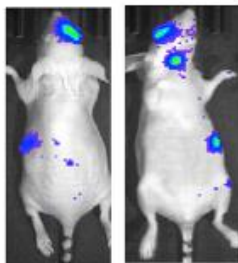
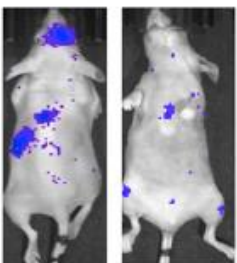
saCas9/gRNA
+ EcoHIV

EcoHIV only

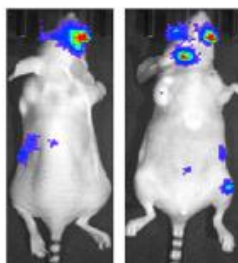
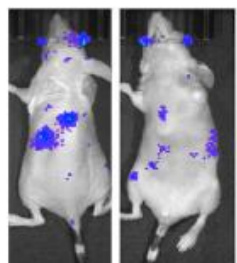
Dorsal Ventral

Dorsal Ventral

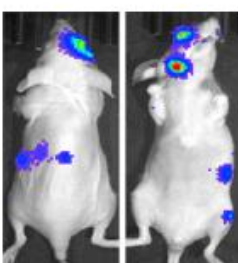
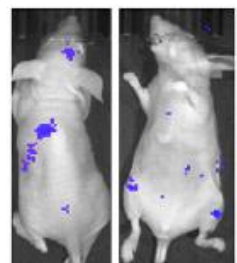
D6



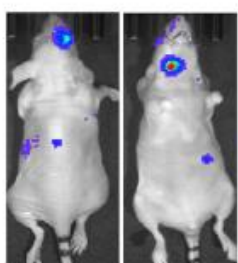
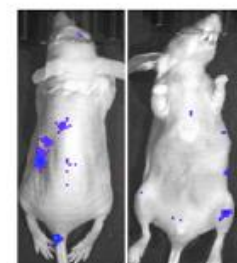
D9



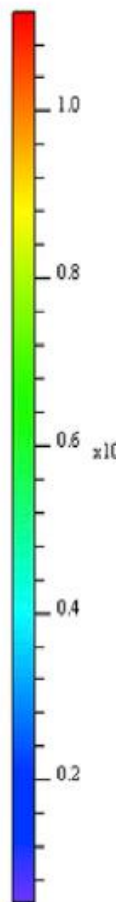
D12



D19



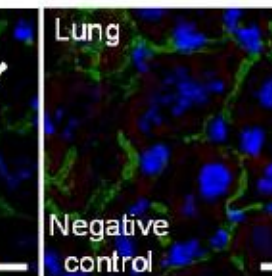
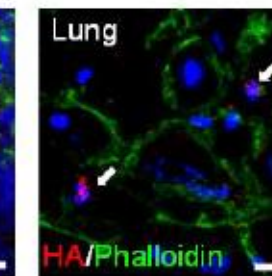
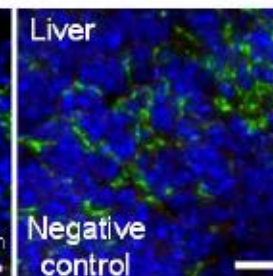
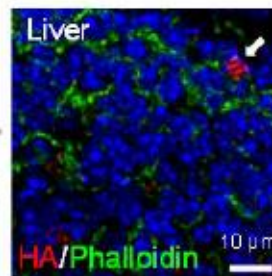
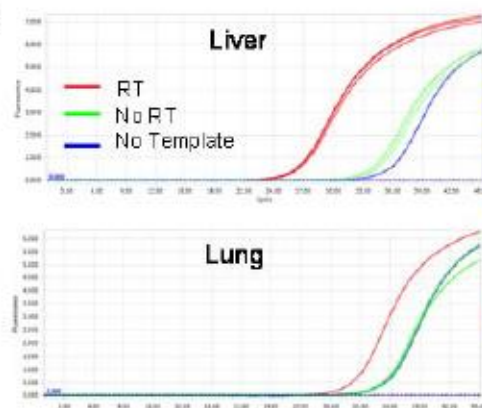
Luminescence



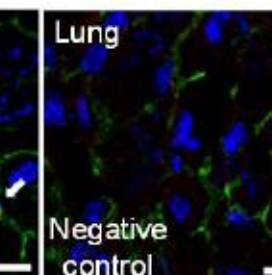
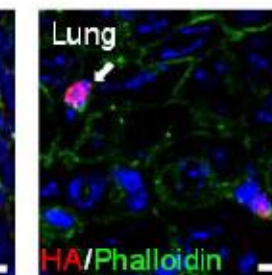
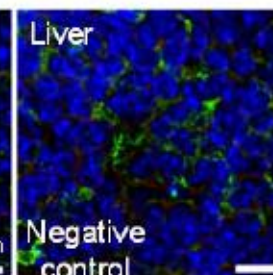
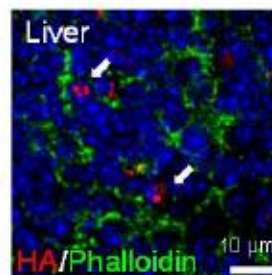
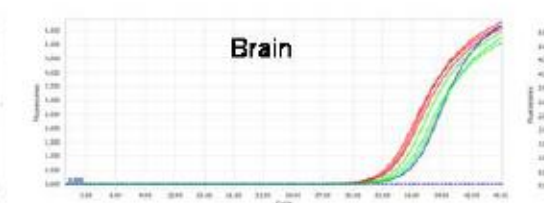
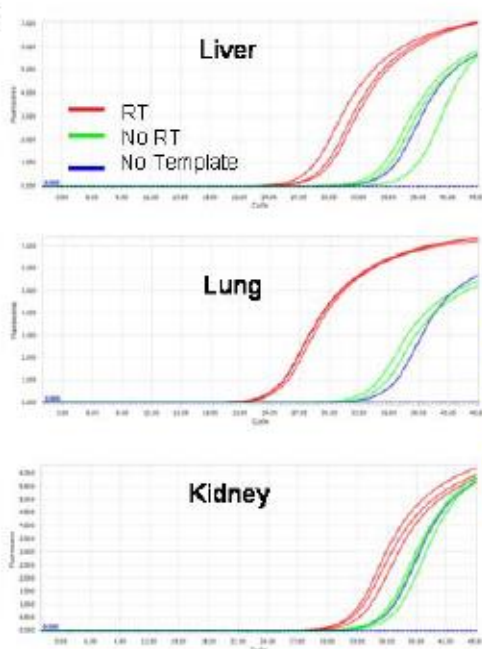
Radiance
(p/sec/cm²/sr)

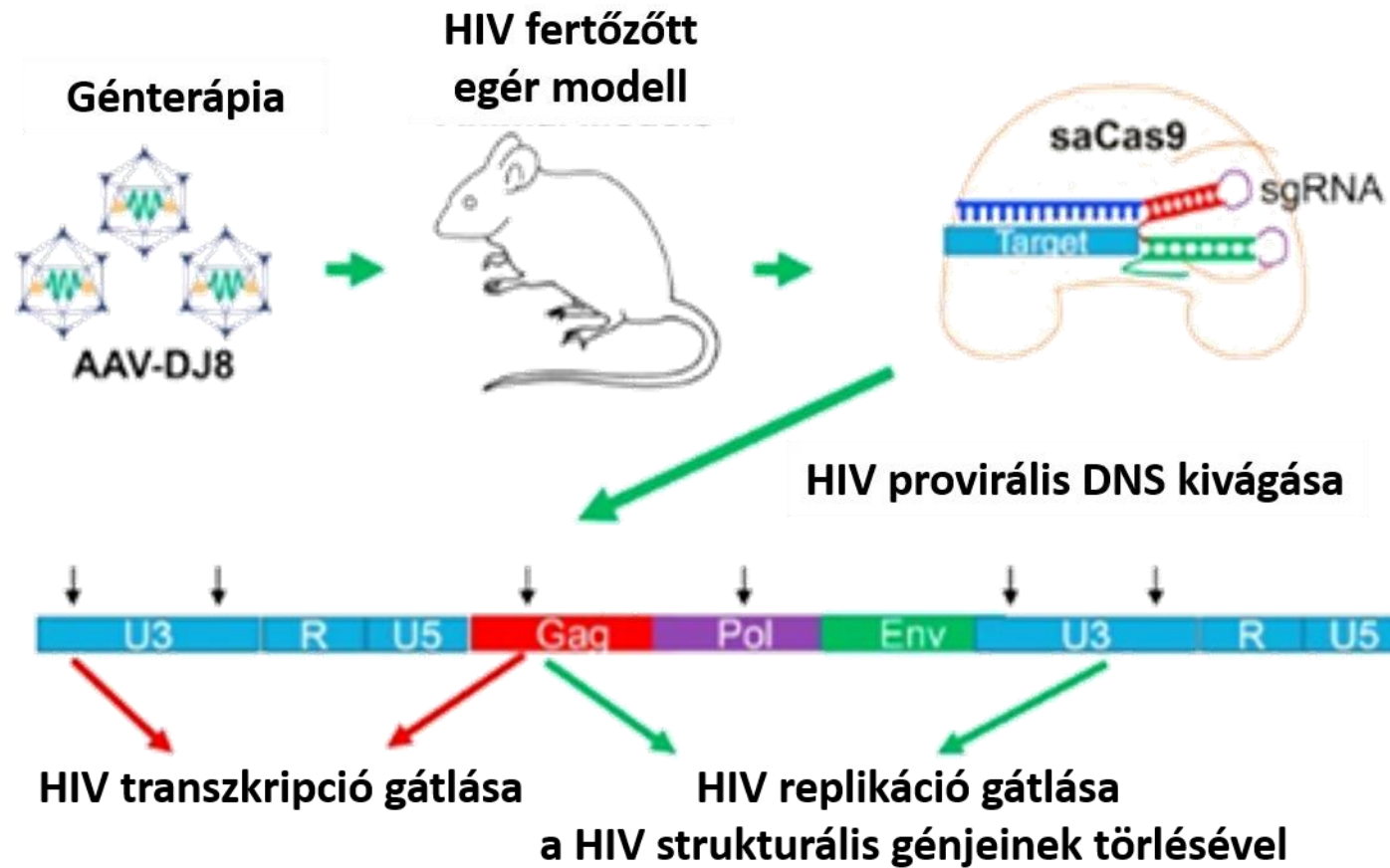
Color Scale
Min = 5.24e3
Max = 1.12e5

a



b





KÖSZÖNÖM SZÉPEN A FIGYELMET!