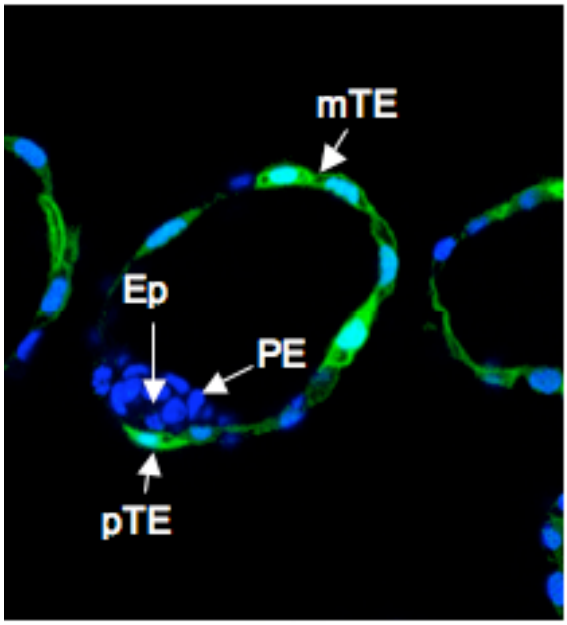
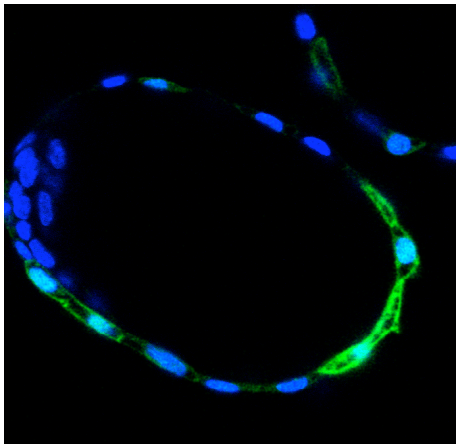
SUPPLEMENTARY INFORMATION

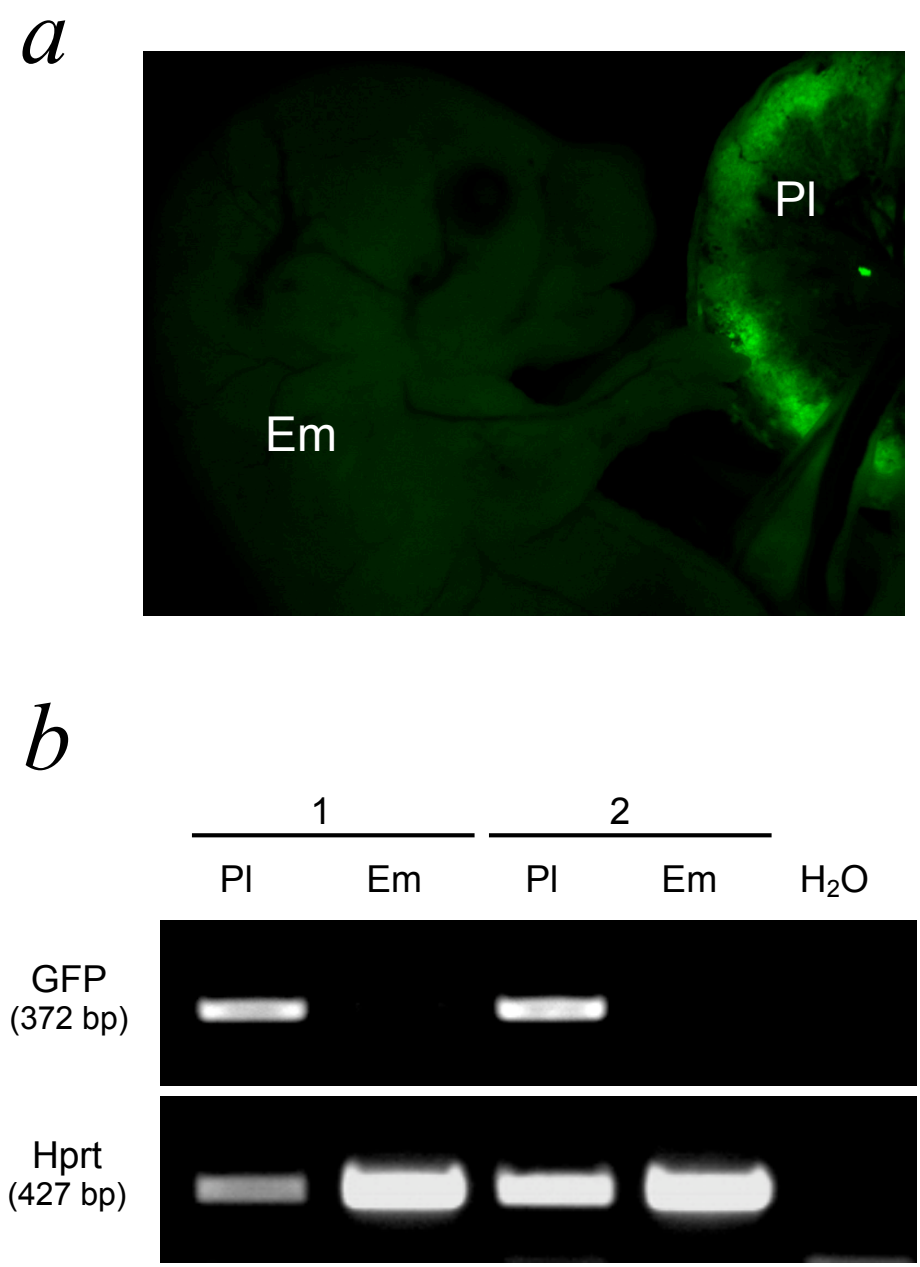
Malashicheva et al.
Lentivirus as a tool for lineage-specific gene manipulations.



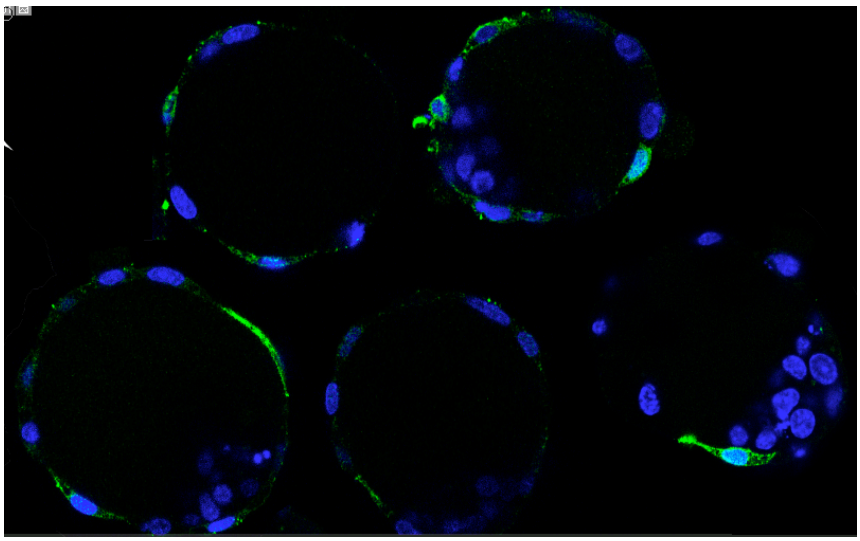
Supplementary Fig. 1. Immunofluorescent detection of GFP in 4.5 dpc mouse blastocysts infected at 3.5 dpc with the LVTHM. The embryos were stained with FITC-conjugated anti-GFP antibody (Abcam), countestained with DAPI (blue), and photographed under confocal microscope. No staining was revealed outside of the TE (n=40). Abbreviations are as in Fig. 1.



SupplementaryFig. 2. 3.5 dpc embryos were infected with the LVTHM overmight, cultured in vitro until 5.5 dpc, and immunistained as in Suppl. Fig.1. Again, no GFP is detectable outside of the TE after such an extended infection and incubation periods (n=27).



Supplementary Fig. 3. (a) Lentiviral expression is stably maintained in the TE-derived placenta (Pl) and is absent from the ICM-derived embryo proper (Em) until nearly the end of pregnancy. 3.5 dpc mouse blastocysts were infected with the LVTHM and re-transferred to the uteri of foster females. Embryos and extra-embryonic tissues were dissected at 18.5 dpc (foster mother plug timing), briefly fixed in 4% PFA and photographed under fluorescent stereo-microscope. **(b)** Genomic DNA from the same placentas and embryos was extracted and subjected to PCR genotyping, using the primer pairs amplifying GFP (5'-GCAAGCTGACCCTGAAGTTCATC-3' 5'-TCACCTTGATGCCGTTCTTCTG-3') and for normalization, Hprt (5'-GCAAATACGAGGAGTCCTGTTGATG-3', 5'-CCACTGAGCAAAACCTCTTAGATGC-3') genomic fragments. Note the absence of integrated LVTHM in embryonic genome.



Supplementary Fig. 4. Selective infection of the TE by an adenovirus. 4.5 dpc blastocysts infected at 3.5 dpc with Ad5-GFP (kindly provided by Dr. Verdon Teylor, Max-Planck Institute for Immunobiology, Freiburg) and processed as in Suppl. Fig. 1. Although transduction efficiency was relatively low, the signal was always restricted to the TE (n=18).