Supplementary Materials:

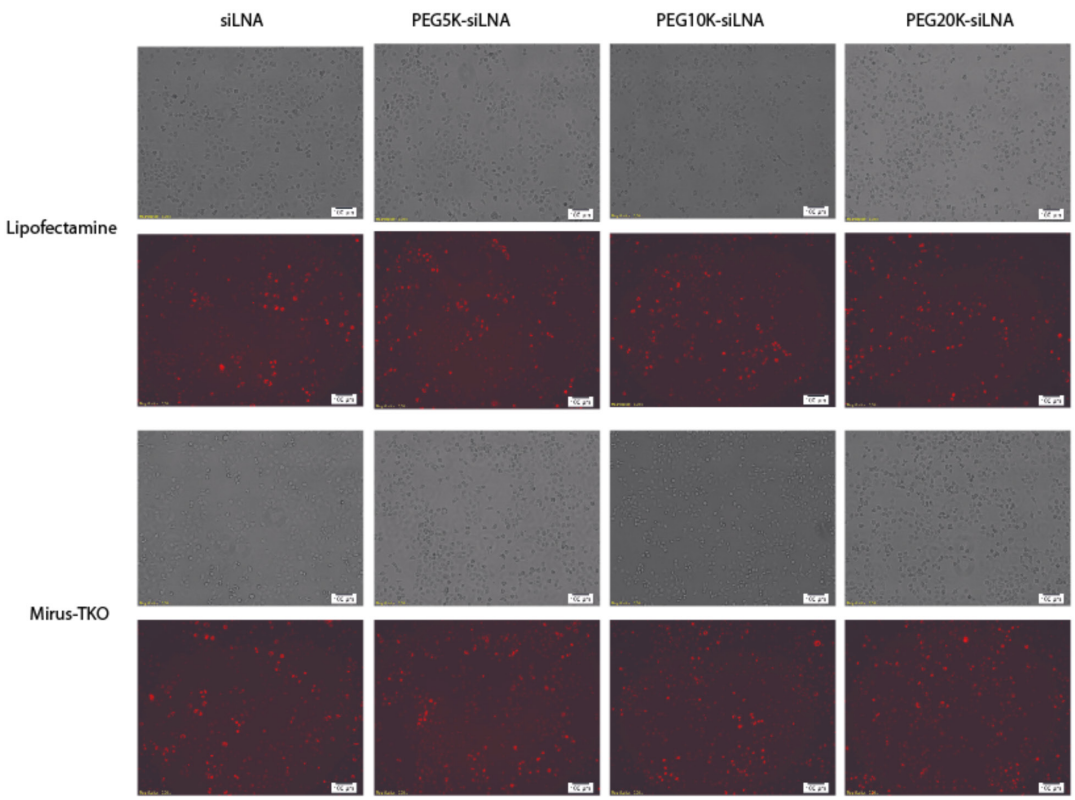

Fig. S1. Cellular uptake of siLNA with or without PEGylation studied by fluorescence microscopy: Cellular uptake of Atto647N labeled siLNA and siLNA conjugated with different MW PEG and formulated with Lipofectamine ^{TM}2000 or Mirus-TKO in H1299 cells. All constructs were transfected at 50 nM final concentration of siRNA under serum free conditions. The images were taken with white light or with an Atto647 specific filter.

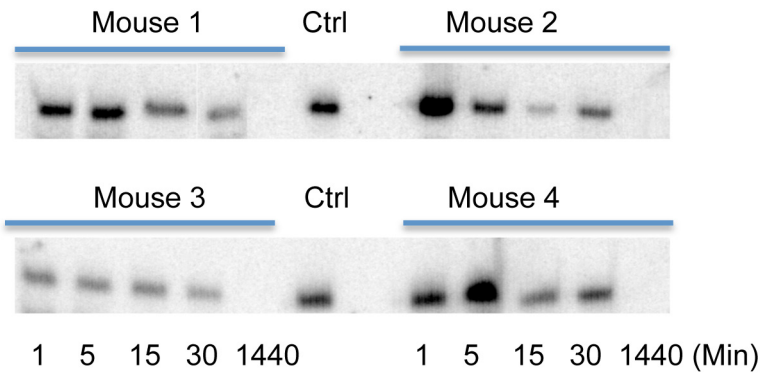

Fig. S2. PEG20k-siLNA stability in blood circulation: Blood samples were harvested at the indicated time points post injection and Northern Blot was performed after the total RNA was purified. Loading order: lanes 1-5 and 8-12 from both gels, RNA samples from blood harvested 1, 5, 15, 30 and 1440 min post injection from mouse 1-4 (Corresponding to the four mice in Fig.3C), lane 6 from both gels, 1ng siRNA (Ctrl), lane 7 from both gels, empty.

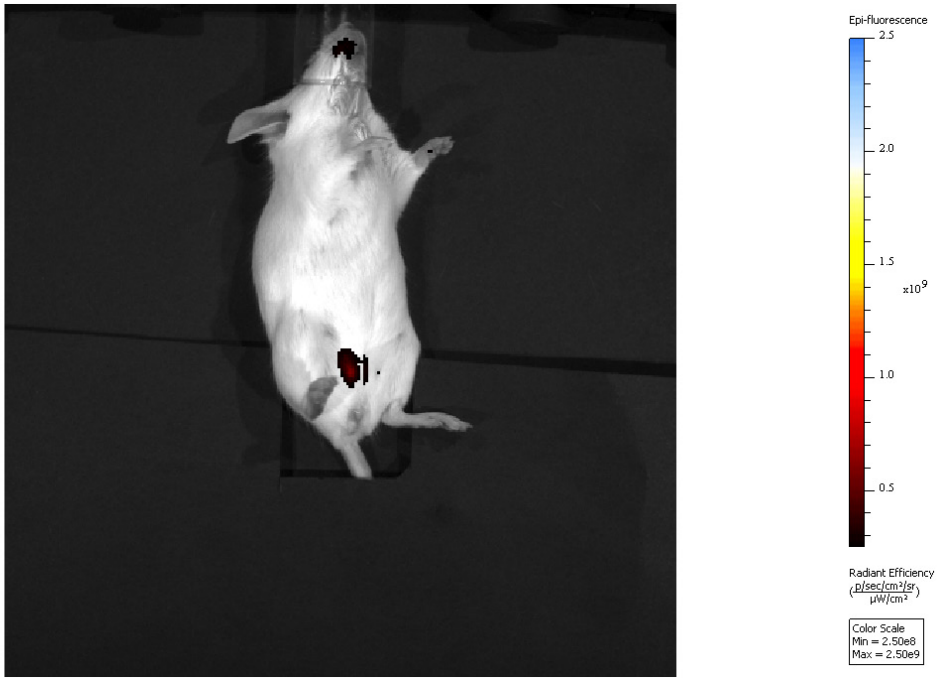

Fig. S3. Fluorescence imaging in one mouse at 1 min post-injection with siLNA. The mouse was injected with siLNA alone, images from the ventral side of the mouse at 1min, showing that the signals at mouth/nose and bladder could already be observed and indicating rapid urinal excretion.