

Figure S1. The plasmid DNA containing the transgene was used in dilutions corresponding to a transgene copy number as indicated. F0 #10, F0 #26: family number 10 and 26.



Figure S2. Quantification of emitted light from Mito-Luc mouse organs.

A) Photon emission from the femurs, sternum, vertebral column, skull and spleen measured as photons per second (p/s). Each bar represents the mean value of 31 and 37 animals for males and females respectively. (B) *ex vivo* BLI of selected organs. The images have been collected on 5 animals for each gender.



Figure S3. *in vitro* luciferase activity in MITO-Luc mouse tissues both in male and female. Bar femur: luciferase activity present in extracts from bone and bone marrow contained in it. Bar bone marrow: luciferase activity present in extracts from bone marrow isolated from femur. Each bar represents the mean value ± s.e.m. of 15 animals.



Figure S4. Femur and sternum photon emission measured as photons per second before (pre) and after (2, 4, 6, 8 days) injection of an adenovirus vector expressing GFP (AdGFP) (control) or a dominant negative NF-YA protein (Ad-dnYA). Each bar represents the mean value \pm s.e.m. of 9 animals per group.



Figure S5. Luciferase activity in MITO-Luc embryo fibroblasts.

MITO-Luc embryo fibroblasts have been infected with Ad-dnYA and, as control, Ad-GFP. The decrease of luciferase activity is shown as fold reduction. The error bars indicate the deviation of the mean of two experiments performed in triplicate.



Figure S6. (A) MITO-Luc mouse imaged at the indicated days post ischemia (P.I.). In vitro luciferase activity in adductor or gastrocnemius (B) and in bone marrow (C) extracts from MITO-Luc mice at indicated days P.I. White and black bars: healthy and ischemic limbs.



Figure S7. Luciferase activity increases in liver extracts from MITO-Luc mice after CCI4-induced damage.

Luciferase activity in liver extracts was measured 1, 4 and 6 days after the liver damage and is shown as relative light units RLU/ μ g protein. Each bar represents the mean value \pm s.e.m. of 3 animals.