Genetic induction of phosphate toxicity significantly reduces the survival of hypercholesterolemic obese mice

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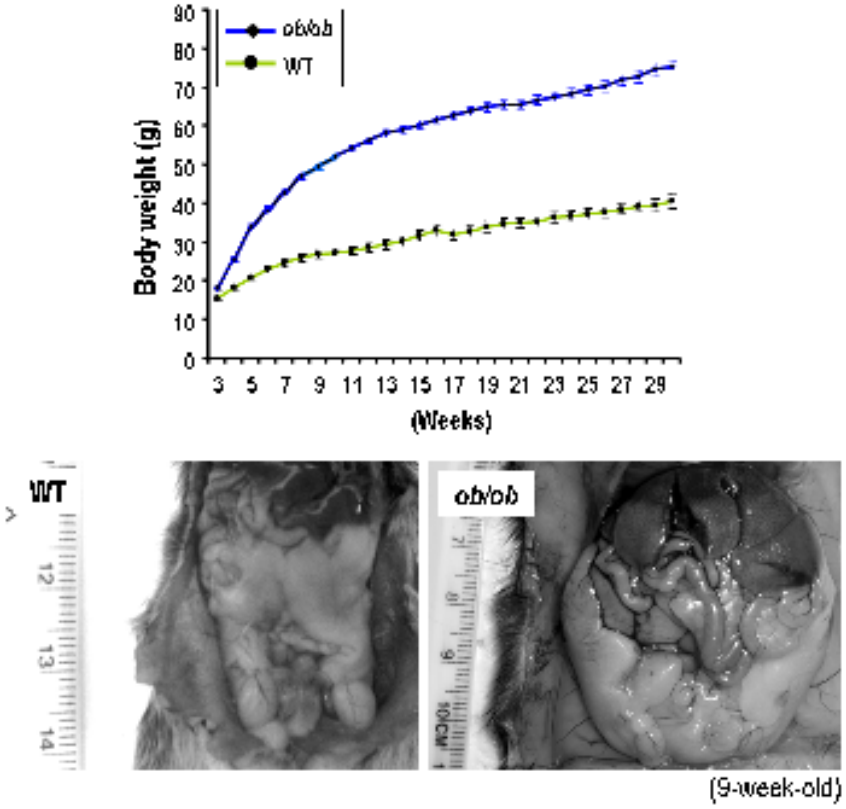
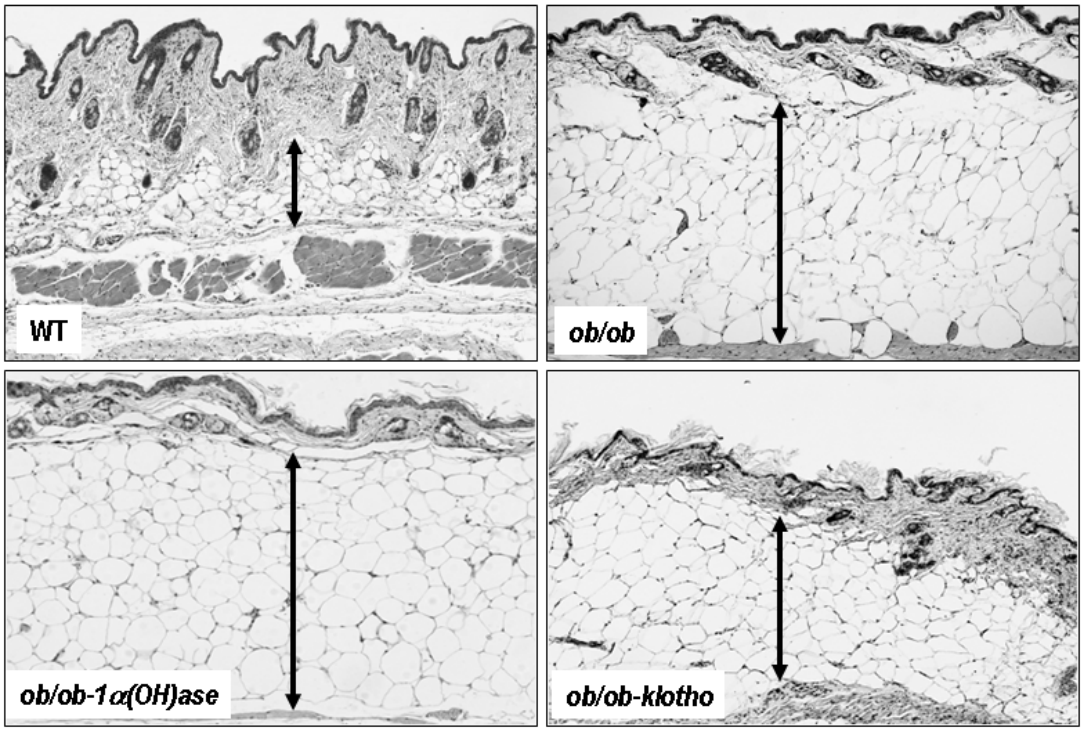
Suppl. Figure 1.

Gross phenotype of the *ob/ob* mice. Body weight chart of wild-type (WT) and *ob/ob* mice. The *ob/ob* mice were significantly larger compared to controls **(upper panel**). By 9 weeks, a massive accumulation of abdominal fat was observed in the *ob/ob* mice compared to the WT mice **(lower panel**) [23].



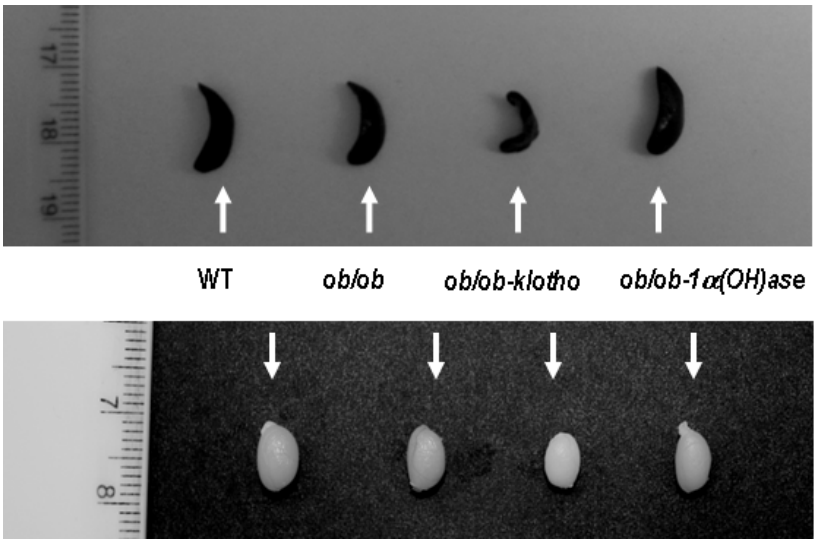
Suppl. Figure 2.

Skin histology. Compared to the skin of the wild-type (WT) mice, there was an increase in the subcutaneous fat tissue layer present in all three mutant mice (*ob/ob*, *ob/ob-klotho*$^{-/-}$ and *ob/ob-1α(OH)ase*$^{-/-}$); however, the *ob/ob-klotho*$^{-/-}$ mice had relatively less fat tissue (*represented as a bar*) (10x magnification).



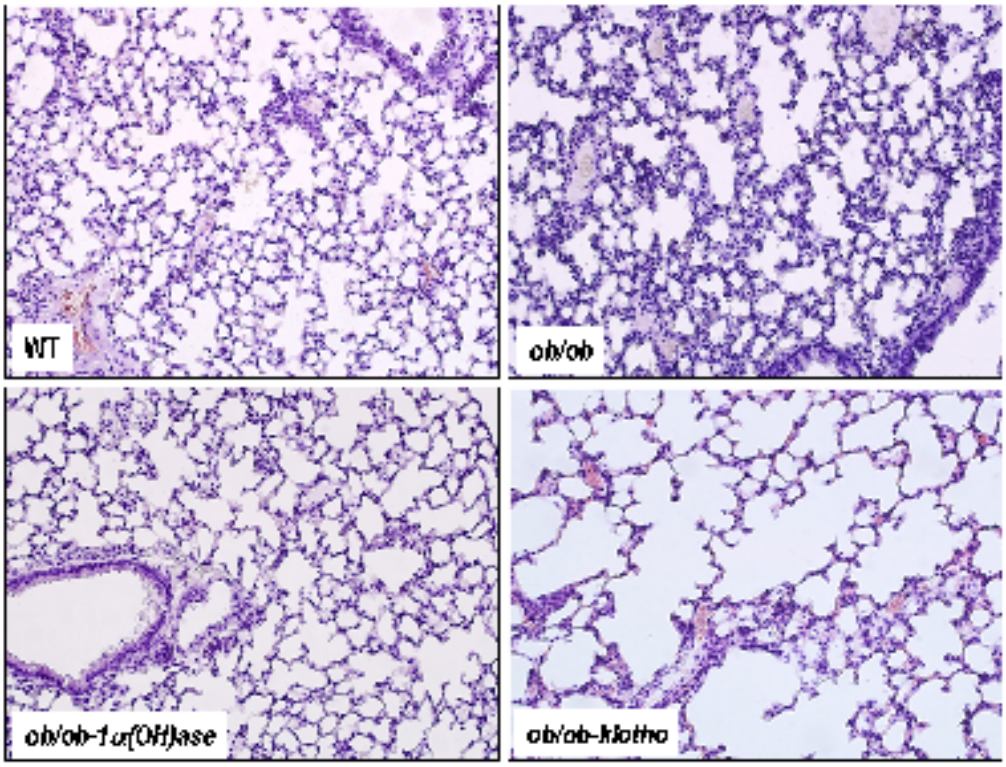
Suppl. Figure 3.

Gross appearance of the spleens and testes in the mouse models. The testes and spleens were collected from wild-type (WT), *ob/ob*, *ob/ob-klotho*$^{-/-}$ and *ob/ob-1α(OH)ase*$^{-/-}$ mice. Compared to the *ob/ob* and *ob/ob-1α(OH)ase*$^{-/-}$ mice, the spleens were smaller in hyperphosphatemic *ob/ob-klotho*$^{-/-}$ mice. The animals were age-matched (11 weeks; **upper panel**). The testes from hyperphosphatemic *ob/ob-klotho*$^{-/-}$ mice were smaller than those from the *ob/ob* or *ob/ob-1α(OH)ase*$^{-/-}$ mice (**lower panel**).



Suppl. Figure 4.

Lung tissue histology. Hematoxylin and eosin-stained sections of the lung tissues from 6-week-old wild-type (WT), *ob/ob*, *ob/ob-klotho*$^{-/-}$ and *ob/ob-1α(OH)ase*$^{-/-}$ mice. Compared to the WT mice, there was marked expansion of alveolar spaces (emphysema) in the hyperphosphatemic *ob/ob-klotho*$^{-/-}$ mice. Similar changes were not observed in the *ob/ob-1α(OH)ase*$^{-/-}$ mice (20x magnification).



Suppl. Figure 5.

Survival plot. Survival analysis of wild-type (WT) (n=10), *ob/ob* (n=10), *ob/ob-klotho*$^{-/-}$ (n=11) and *ob/ob-1α(OH)ase*$^{-/-}$ (n=10) mice. The survival time of hyperphosphatemic *ob/ob-klotho*$^{-/-}$ mice was reduced compared to the *ob/ob* or *ob/ob-1α(OH)ase*$^{-/-}$ mice. All the *ob/ob-klotho*$^{-/-}$ mice died by 20 weeks, while none of the WT, *ob/ob* or *ob/ob-1α(OH)ase*$^{-/-}$ mice died within the 25 week observation period [23].