



**Supplementary Figure 4.  $\beta$ -catenin TALENs alone are able to induce liver tumors.**

(A) C3H mice were treated with GoldyTALEN vector (20ug) only or  $\beta$ -catenin TALEN (10ug of each) only, without DEN (n = 5). The yellow arrows point to distinct tumors with a red, fleshy appearance.

(B) Genotyping of liver and tumor samples.

(C) Sequencing results of the  $\beta$ -catenin mutated tumors. Highlighted sequences are TALEN binding sites.