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## Supplementary Figure legends

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**Supplementary Figure 1. A.** Telomerase activity was measured in MEFs extracts grown in the presence or absence of TA-65 for 24h and 5 days. Two different concentrations of TA-65 were tested. A cellular extract from HCT116 cells was included as a positive control, and RNase was added in all experimental settings as negative control. IC, PCR efficiency control.

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Supplementary Figure 2. A Body weight of the indicated mice before or after treatment is given
as mean±SEM.

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Supplementary Figure 3. A. Fold change in mTERT mRNA levels 3 months post treatment in different tissues of 1 year old TA-65 treated mice compared to age-matched controls. mTERT mRNA values were normalized to actin. B. Fold change in JunB mRNA levels 3 months post treatment in different tissues of 1 year old TA-65 treated mice compared to age-matched controls. JunB mRNA values were normalized to actin. C. Fold change in c-Myc mRNA levels 3 months post treatment in different tissues of 1 year old TA-65 treated mice compared to age-matched controls.

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Supplementary Figure 4. A. Fold changes in CD44, CyclinD1, Klf4, Fibronectin and p16 mRNA
 levels in liver extracts of TA-65 treated mice compared to age-matched controls. mRNA values
 were normalized to actin.

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Supplementary Figure 5. A. Percentage of Ki67-positive cells in the lung from mice non-treated
 (control) or treated with TA-65. Student's t-test was used for statistical assessments. At least 4
 HPF (x100) were used per independent mouse (around 24000 lung cells scored per mouse). B.
 Representative Ki67 immunohistochemistry images of lung from the indicated mice cohorts. C.
 Percentage of TUNEL-positive (Apoptag detection kit) cells in the lung from mice non-treated

1 (control) or treated with TA-65. Student's t-test was used for statistical assessments. At least 4 2 HPF (x100) were used per independent mouse (around 24000 cells scored per mouse). D. 3 Representative TUNEL stained images of lung from the indicated mice cohorts. E. Percentage of Ki67-positive cells in the liver from mice non-treated (control) or treated with TA-65. Student's t-test 4 was used for statistical assessments. At least 5 HPF (x100) were used per independent mouse 5 (around 3000 hepatocytes scored per mouse). F. Representative Ki67 immunohistochemistry 6 7 images of liver from the indicated mice cohorts. G. Percentage of TUNEL-positive (Apoptag detection kit) cells in the liver from mice non-treated (control) or treated with TA-65. Student's t-test 8 was used for statistical assessments. At least 5 HPF (x100) were used per independent mouse 9 (around 3000 hepatocytes scored per mouse). H. Representative TUNEL stained images of liver 10 from the indicated mice cohorts. 11

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24 hours

5 days





А

С



Α



Control

TA-65



Control

TA-65