



Extended Data Figure 7 | Wnt signalling is dispensable for senescence induction, but required for senescence-associated stemness.

a, Senescence induction by ADR in control; *Bcl2* lymphoma cells with and without parallel application of the indicated pharmacological or genetic Wnt inhibitors (ICG-001, salinomycin or *Ctnnb1* knockdown by shRNA (shCtnnb1)). Results reflect mean percentages of SA-β-gal-positive cells ± s.d. ($n = 4$ independent lymphomas). **b**, Expression of stemness-related transcripts by qPCR in ADR-treated control; *Bcl2* lymphoma cells exposed to *Ctnnb1* knockdown by shRNA retroviral infection (shCtnnb1). The colour scale represents mean fold induction normalized to ADR-untreated (ut) and vector-infected controls ± s.d. ($n = 3$ biologically independent samples). **c**, Relative viability of *Suv39h1*^{-/-}; *Bcl2*; *Suv39h1*-ER^{T2} cells exposed to the indicated Wnt inhibitors either simultaneously with ADR ± 4-OHT treatment (for the last 48 h of treatment), or at passage 2 after terminating ADR ± 4-OHT (never senescent and previously senescent; treated over 48 h with inhibitors).

Results show relative viability normalized to sample with no Wnt inhibitor treatment ± s.d. ($n = 3$ biologically independent samples). **d**, Colony formation of human LT174T colon carcinoma cells exposed to mock or shp53-lentivirus upon ADR-induced senescence, and further propagated in ADR-free medium (corresponding to passage 3 in Extended Data Fig. 3f). Results show mean colony counts after seven-day exposure to indicated Wnt inhibitors ± s.d. ($n = 3$ independent experiments per group). Two-tailed, unpaired *t*-test with Welch's correction, $*P < 0.05$. **e**, Individual survival times of the six matched never senescent and previously senescent lymphoma pairs (shown collectively in Fig. 3d). **f**, Individual survival times of mice bearing never senescent (left) and previously senescent lymphomas (right) after exposure to Wnt signalling inhibition by *Ctnnb1* knockdown (shCtnnb1) or left uninhibited. The line plots represent the same matched never senescent and previously senescent lymphomas as in **e**.