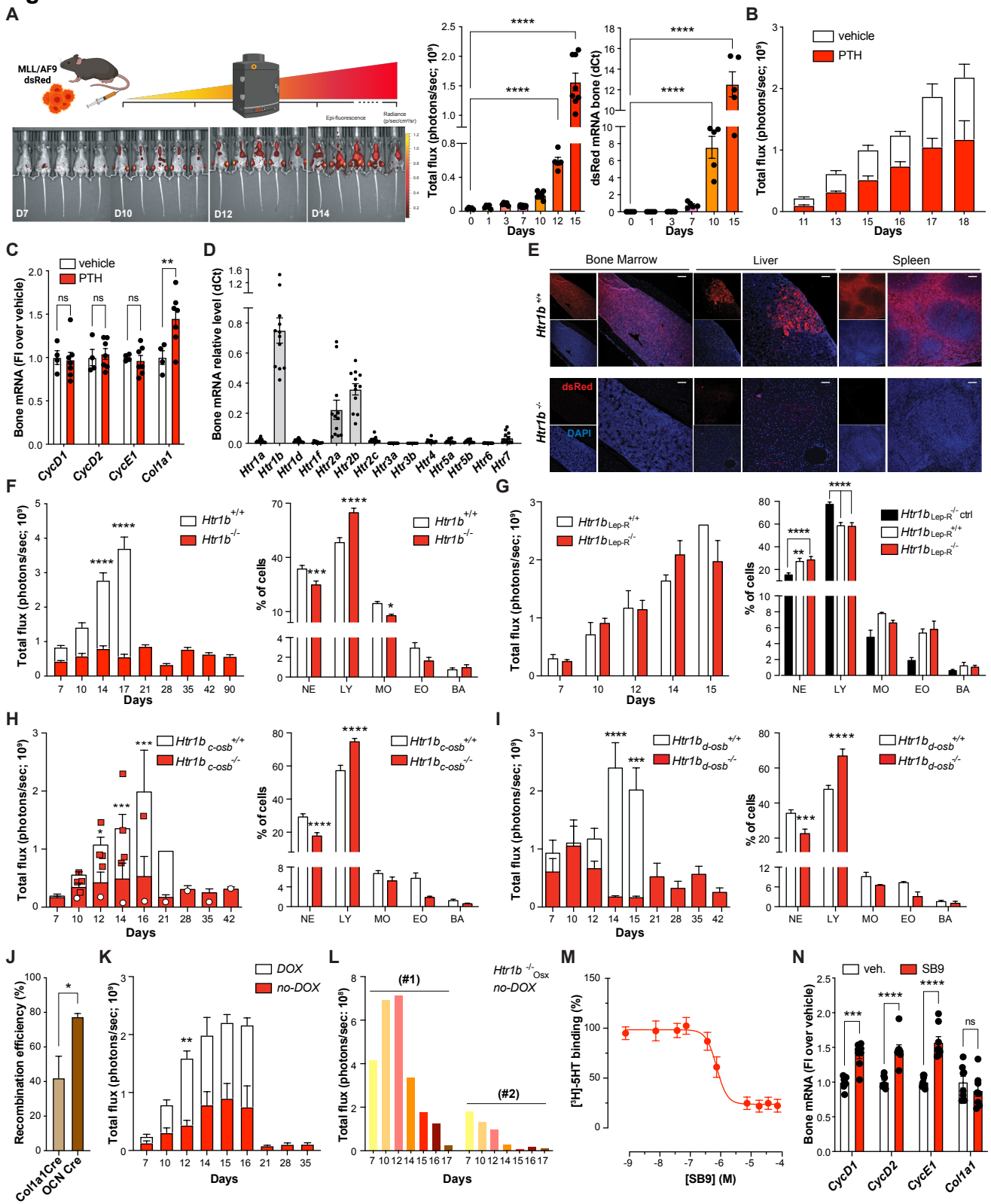


Figure S1



Supplementary Figure S1. Expression of *Htr1b* in osteoblasts is necessary for leukemia progression. Related to Figure 1. (A) Representative images of *in vivo* leukemia progression in MLL/AF9-dsRed injected wild-type (WT) mice at the indicated days. Histograms: ds-Red emitted fluorescence (n=5-14 mice/day) and mRNA levels in bone (femur, n=5 mice/day); one-way ANOVA. (B) *In vivo* leukemia progression (fluorescence counts) in WT MLL/AF9 mice treated with vehicle (n=4) or PTH (n=7). (C) mRNA cyclins (*Cyc*) and collagen 1 (*Colla1*) levels in bone (femur) of mice in (B). (D) mRNA relative levels of the 14-known serotonin receptors in primary mouse osteoblasts (n=12 femur samples). (E) Representative images of *Htr1b*^{-/-} vs *Htr1b*^{+/+} littermates injected with MLL/AF9 dsRed cells; nuclei stained with 4,6-diamidino-2-phenylindole staining (DAPI). Scale 100μm. (F-I): Left panels: *In vivo* quantification of leukemia progression (dsRed fluorescence); right panels: complete blood counts (CBC) at harvest in: (F) *Htr1b*^{-/-} (n=29 flux; n=8 CBC) vs. *Htr1b*^{+/+} (n=13 flux; n=5 CBC) mice; (G) mice lacking *Htr1b* expression in mesenchymal/stromal progenitor cells (*Htr1b*_{Lep-R}^{-/-}, n=8 vs. *Htr1b*_{Lep-R}^{+/+}, n=4); (H) in committed osteoblast progenitors (*Htr1b*_{c-osb}^{-/-}, n=7 vs. *Htr1b*_{c-osb}^{+/+}, n=11 -the 4 *Htr1b*_{c-osb}^{-/-} mice dead are independently depicted with red squares and the only *Htr1b*_{c-osb}^{+/+} alive is shown with a white circle-; or in (I) differentiated osteoblasts (*Htr1b*_{d-osb}^{-/-}, n=5 vs. *Htr1b*_{d-osb}^{+/+}, n=7 flux and n=3 CBCs). (J) Recombination efficiency percentage in CollaCre (n=2) versus OCN Cre (n=3) lines for the *Htr1b* fl/fl locus; unpaired t-test. (K) *In vivo* quantification of leukemia progression in mice kept on doxycycline (DOX) diet (*Htr1b*_{Osx}^{+/+}; n=6) or with DOX- removed 24h after MLL/AF9 injection (no-DOX; *Htr1b*_{Osx}^{-/-}; n=9). (L) *In vivo* quantification of leukemia progression on the indicated days for the two survivor mice (#1 and #2) in the no-DOX group. (M) Radioligand competitive-binding assay on *Htr1b*-overexpressing-HEK293T membranes with [³H]-5-HT (25nM, 41.3 Ci/mmol) competed out with SB9 at the indicated concentrations, logEC₅₀: 1μM (see Table 1). (N) mRNA cyclins (*Cyc*) and collagen 1 (*Colla1*) levels in bone (femur) of WT mice injected with MLL/AF9-dsRed cells and treated with either vehicle (n=8) or SB9 (n=8). Osb, osteoblast; NE, neutrophils; LY, lymphocytes; MO, monocytes; EO, eosinophils and BA, basophils. All data are represented as mean ± SEM. Statistical analysis done with two-way ANOVA unless otherwise stated.