

Supplemental Figure 1 Schematic of the *INK-ATTAC* (A) and *p16-3MR* (B) mice. (A) The *INK-ATTAC* mice express a caspase 8-FKBP fusion protein from a $p16^{Ink4a}$ promoter fragment. This drives apoptosis of $p16^{Ink4a}$ expressing cells in vivo after administration of the drug AP20187, which promotes dimerization of FKBP and thereby caspase 8. (B) *p16-3MR* mice express a fusion of three transgenic reporters, the renilla luciferase (LUC), monomeric red fluorescent protein (mRFP), and herpes simplex virus 1 thymidine kinase (HSV-TK) under the control of a $p16^{Ink4a}$ promoter in a BAC construct, allowing for specific killing of $p16^{Ink4a}$ expressing cells when the drug ganciclovir (GCV) is administered to mice. GCV is by converted by HSV-TK. to GCV-triphosphate, which is a toxic chain terminator of DNA replication. (Figure courtesy of Dr. Carolina Soto Palma.)

