SUPPLEMENTAL FIGURE LEGENDS.

Figure S1. Apoptosis was induced after p53 restoration in the subventricular zone (SVZ) of *mdmX−/−;p53KI/−* mice but not in the cerebellum, even though p53 is activated (as evidenced by *cdkn1a* induction).

Mice of the indicated genotypes were treated with either vehicle (V) or tamoxifen (T) and tissues collected 6 hours later for immunohistochemical analysis and RNA extraction. Representative TUNEL stainings are shown (arrowheads mark positive cells), together with Taqman analysis of *cdk1na* expression in the cerebellum. Error bars show SEM of triplicates.

Figure S2. Small intestine is extremely sensitive to p53 restoration in the absence of Mdm2.

Hematoxilin and eosin staining on small intestine sections from *mdm2+/+;p53KI/−* and *mdm2−/−;p53KI/−* mice treated with either vehicle or tamoxifen for 5 days (daily injections), as indicated.

Figure S3. Blood counts on mice treated for 26 days.

*mdmX−/−;p53KI/−* mice treated with tamoxifen are severely anemic. Controls are *mdmX−/−;p53KI/−* mice treated with vehicle and *mdmX+/+;p53KI/−* mice treated with tamoxifen. Error bars show SEM of triplicates.
Figure S4. Bone marrow cells are depleted after p53 restoration in the absence of Mdm2, but not in the absence of MdmX.

Whole bone marrow was collected from mice of the indicated genotypes after either a short p53 restoration (1 day tamoxifen) or a long p53 restoration (7 days for p53\(^{KI/-}\) and m\(dmX^{-/-}:p53^{KI/-}\) mice and only 5 days for m\(dm2^{-/-}:p53^{KI/-}\) mice, because of lethality). Total cell counts (excluding red blood cells) are presented.

Figure S5. Mdm2 is functional and contributes to the downregulation of p53 levels and activity in the absence of MdmX.

Mice of the indicated genotypes were treated with either vehicle (V) or tamoxifen (T) for one day. The levels of p53 in the spleen and thymus of these mice are presented (immunoblot, each lane is a separate mouse), together with a quantification of the p53 levels in tamoxifen-treated mice (from the blot shown). The relative induction of the p53 target gene cd\(kn1a\) (by Taqman; gus is the control gene) in these mice is also shown. Error bars show SEM from triplicates.