Supplementary Material & Methods

Protein detection. Cell lysates were made in standard RIPA buffer at 20000 cells/μL and protein concentration were determined. For FANCD2 detection 50 μg total protein was loaded for every sample on Nupage 3-8% Tris-Acetate gels (Invitrogen, Carlsbad, CA). Protein separation was performed by electrophoresis for $2^1/_2$ hours at 90 (V) and transfer to PVDF membrane (Millipore, Billarica, MA) at 25 (V) overnight. For MLH1 detection 30 μg total protein was loaded for every sample on Nupage 4-12% Bis-Tris Gels, following standard overnight transfer. The following antibodies were used for protein detection Novus Biologicals NB100-182 polyclonal rabbit serum was used to detect human FANCD2 in a dilution of 1:1000. Detection of human and mouse MLH1 was performed with Santa Cruz SC-581 1:1000. All incubations were performed at 4^o Celsius in TBST 0.1% Tween-20, 2% milk. Incubation with anti-mouse and -rabbit IgG HRP conjugated secondary antisera (Amersham, Piscataway, NJ) was followed by a standard chemo-luminescent detection.