**Fig. 4 | XXXX is a therapeutically targetable tumour suppressor in melanoma.**

**a**, XXXX expression (z-score normalized) in TCGA UVM samples with (n = 18) or without (n = 62) SF3B1 mutations. Is there a difference in expression by group?

**b,** Tumour volume 49 days after subcutaneous engraftment of Melan-a cells transduced with the indicated shRNAs into SCID mice. n = 16, 16, 16, 14 and 14 tumours per group (left to right). Is there a difference in expression by group?

**d,** Survival of SCID mice engrafted with MEL270 cells that express empty vector, full-length wild-type XXXX or a XXXX bromodomain-deletion mutant (ΔBD). n = 5 mice per group. Is there a difference in survival by group?

**e,** Tumour volume from experiments shown in d, 21 days after engraftment. n = 10 tumours per group. Is there a difference by group?

**f,** Colony number and relative growth over time of MEL202 cells without (control) or with (clone 1, clone 2 and clone 3) CRISPR–Cas9induced disruption of the XXXX poison exon. n = 3 biologically independent experiments. Is there a difference by group? Is there a difference over time by group?

**g,** Tumour volume over time of mice engrafted with control or clone 1 cells from f. n = 6 tumours per group. Is there a difference over time by group?

**i,** Tumour weight following 16 days of in vivo treatment of MEL202-derived xenografts with PBS or a non-targeting (control) or poison-exontargeting (no. 6) morpholino (12.5 mg kg−1, every other day to a total of 8 intratumoral injections). n = 10 tumours per group. Is there a difference by group?

**k,** Tumour weight following *in vivo* morpholino treatment of a patient-derived rectal melanoma xenograft . Scale bar, 1 cm. n = 5 tumours per group. Is there a difference by group?