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## Supplementary figures

# In Vivo Identification of H3K9me2/H3K79me3 as an Epigenetic Barrier to Carcinogenesis

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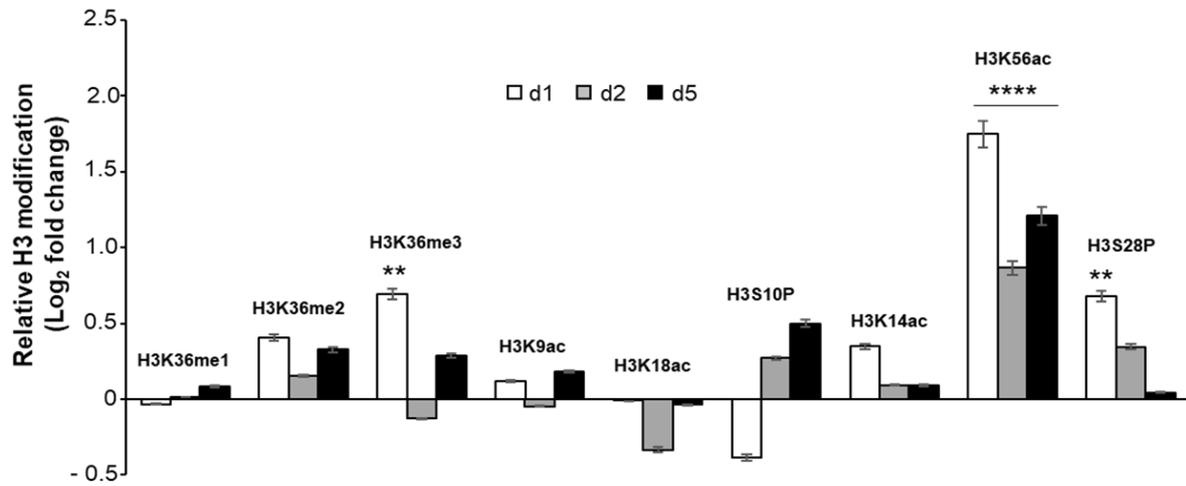
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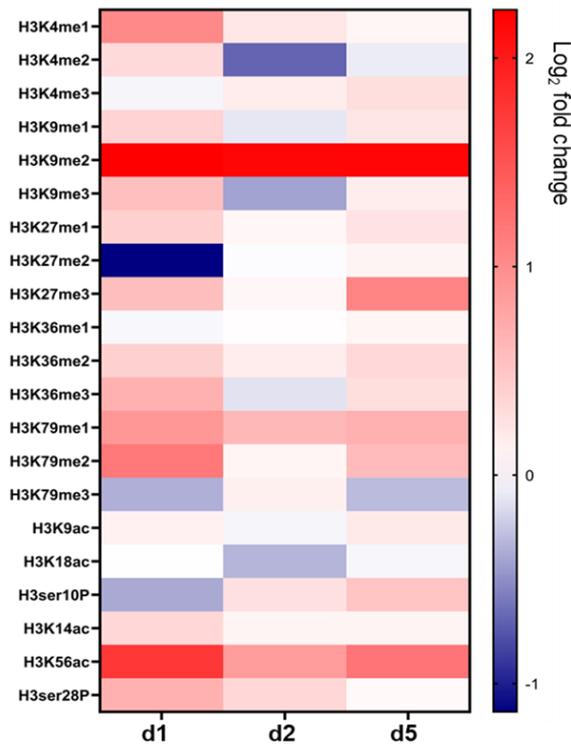
# Co-first authors

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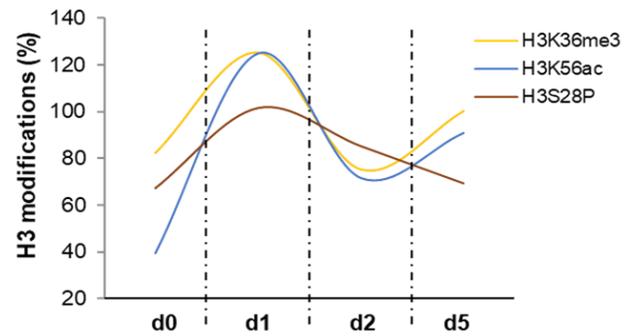
(a)



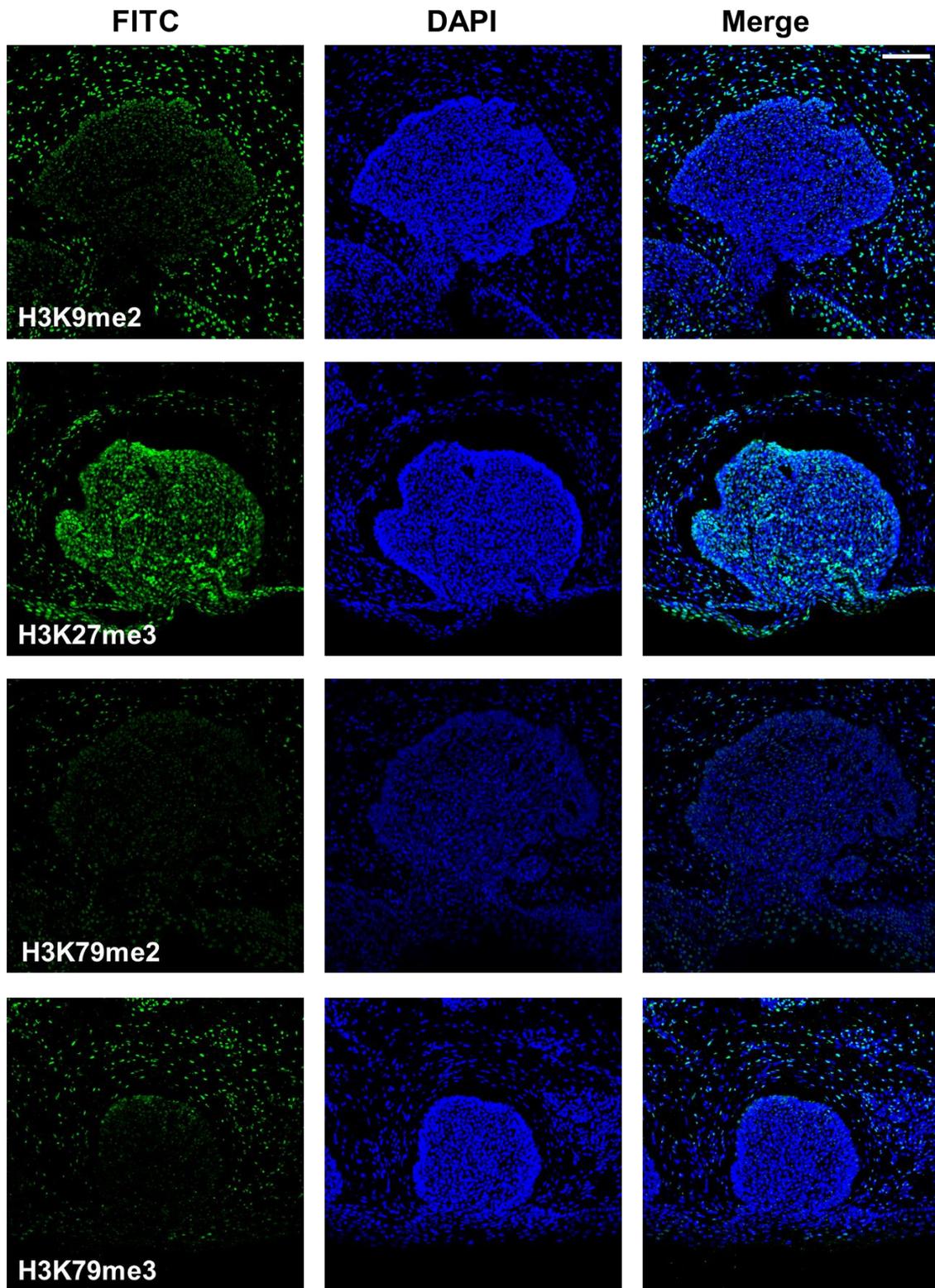
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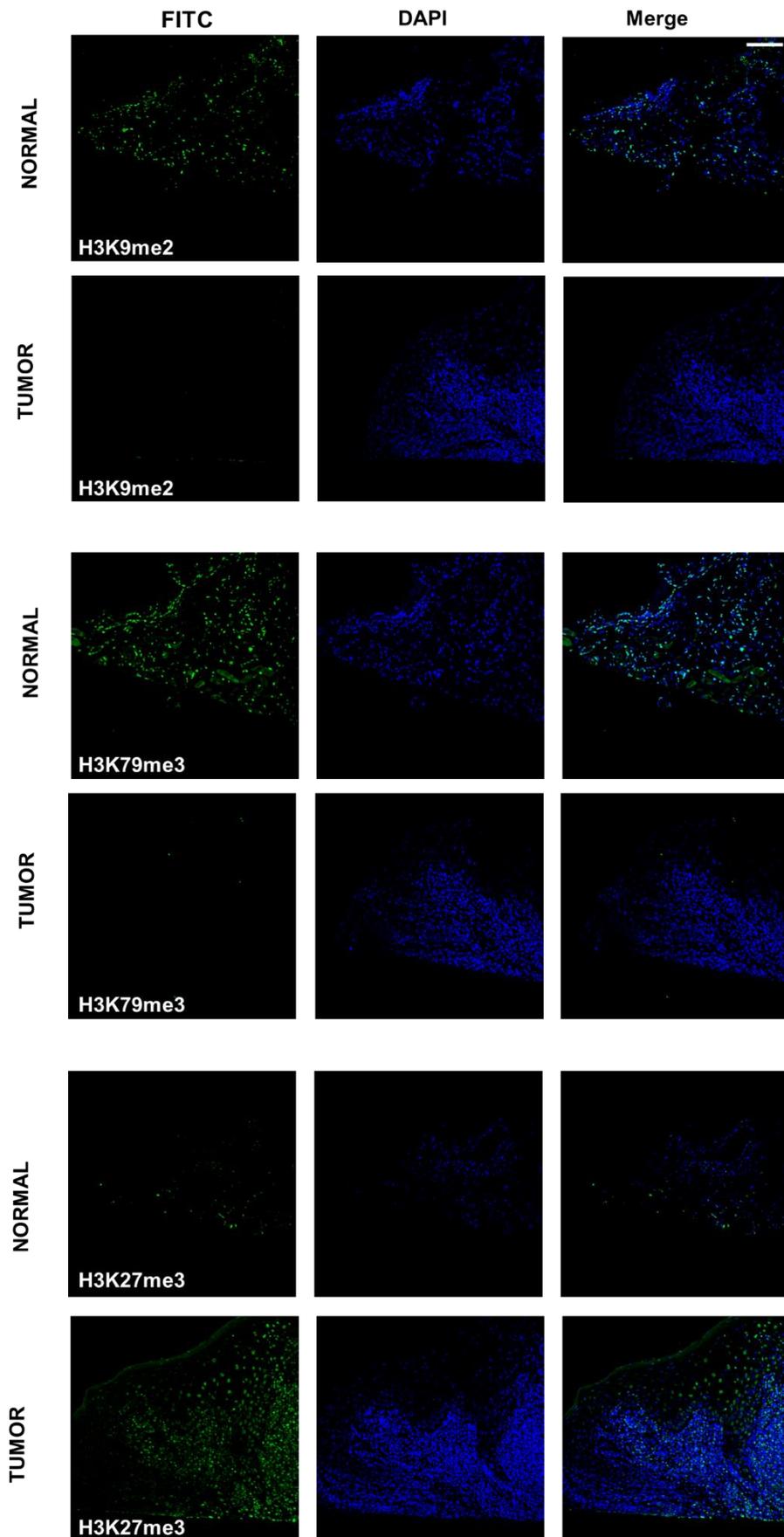
(c)



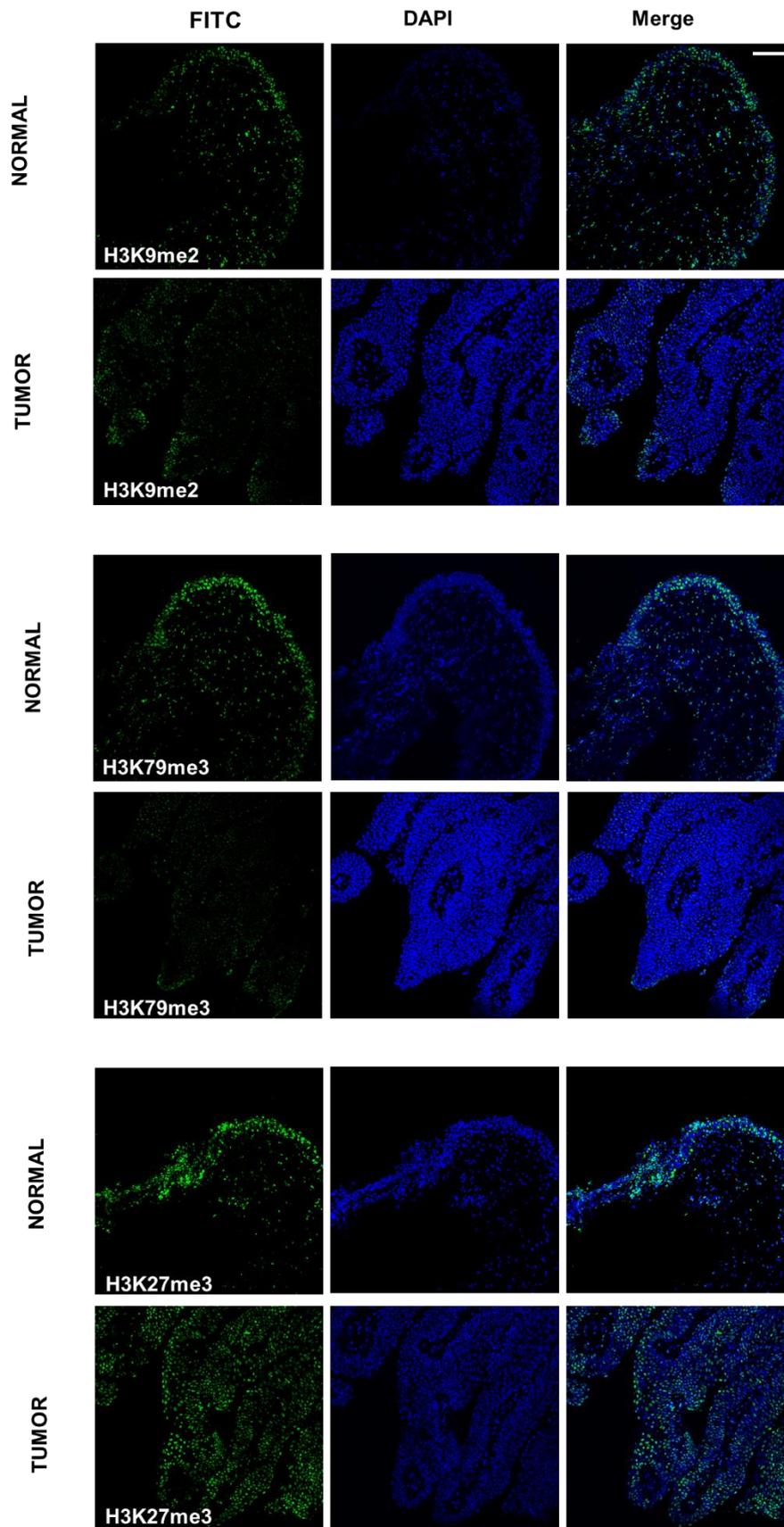
**Supplementary Figure S1.** Epigenetic modifications during osteogenic differentiation of human neuroblastoma SH-SY5Y cells. (a) Genome-wide analysis of specific H3 modifications (H3K36me1/2/3, H3K9ac, H3K18ac, H3S10P, H3K14ac, H3K56ac, H3S28P) in SH-SY5Y cells grown in the presence of 5  $\mu$ M rapamycin and Geistlich Bio-Oss for 1, 2 and 5 days. Histone marker modifications are expressed as Log<sub>2</sub> fold change of H3 methylation over undifferentiated cells. (b) Heatmap of changes in histone H3 modifications during differentiation of SH-SY5Y cells treated as in (a). Data are expressed as Log<sub>2</sub> fold change. (c) Graphical representation of statistically significant H3 methylation changes reported in (a). Results are shown as mean  $\pm$  S.E.M. of three independent experiments, each performed in triplicate. \*\*  $p < 0.01$  and \*\*\*\*  $p < 0.0001$  versus undifferentiated cells.



**Supplementary Figure S2.** Immunofluorescence images of H3 modifications in basalioma biopsy (shown in Figure 2) with FITC channels (green), DAPI channels (blue) and merge of the two fluorescence signals (last panel). 20× magnification. Scale bar: 100 μm.



**Supplementary Figure S3.** Immunofluorescence images of H3 modifications in tumor and normal head and neck biopsy (shown in Figure 3) with FITC channels (green), DAPI channels (blue) and merge of the two fluorescence signals (last panel). 20× magnification. Scale bar: 100 μm.



**Supplementary Figure S4.** Immunofluorescence images of H3 modifications in tumor and normal bladder biopsy (shown in Figure 4) with FITC channels (green), DAPI channels (blue) and merge of the two fluorescence signals (last panel). 20× magnification. Scale bar: 100 μm.