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SWI/SNF is a tumour suppressor

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The SNF5 protein (also called INI1) is a subunit common to two closely related mammalian SWI/SNF complexes that function as chromatin-remodeling machines. The human gene, *hSNF5*, is mutated in early childhood malignant rhabdoid tumors (MRT). In the December EMBO Reports, Klochendler-Yeivin *et al*. describe a mouse model for SNF5 deficiency (*EMBO Reports* 2000, **1:**500-506). Knockout mice embryos lacking a functional *SNF5* gene die shortly after implantation. Experiments with blastocytes in culture show that the lack of SNF5 affects outgrowth of the inner cell mass and results in widespread apoptosis. Careful analysis of viable heterozygous SNF5+/- mice revealed cancer susceptibility. A third of these animals developed tumors that shared features of the human MRT disease. The mice provide an interesting model to study the link between chromatin and tumorigenesis.

References

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2. Truncating mutations of hSNF5/INI1 in aggressive paediatric cancer.

3. *EMBO Reports*, [http://embo-reports.oupjournals.org]