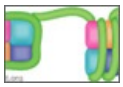
Subtle changes in DNA organization can drive melanoma development.



The DNA in our cells is highly organized. Part of that organization includes winding the DNA around balls (nucleosomes) made up of several different proteins called histones. Researchers have discovered that changes in the types of histones present in skin cells can drive the development of melanoma. Changes in the shape of the protein balls (called nucleosomes) can change how the genes in that part of the DNA strand are used.

In melanoma, decreases in the amounts of a histone called macroH2a lead to increased activity of a gene (CDK8) that is already known to be involved in colorectal cancer. The results suggest that CDK8 and/or macroH2a could be viable targets in melanoma.

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