

Kangaroos may hold skin cancer cure: study

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Kangaroos may provide the key to a potential treatment to prevent skin cancer, Australian scientists said Monday.

Researchers at Melbourne University are investigating whether a [DNA repair enzyme](#) found in the jumping marsupials could provide a model for preventing [DNA](#) damage linked to many skin cancers in humans.

"Other research teams have proposed a 'dream cream' containing the DNA repair enzyme which you could slap on your skin after a day in the sun," scientist Linda Feketeova said.

"We are now examining whether this would be feasible by looking at the chemistry behind the DNA repair system."

Feketeova and colleague Uta Wille, who are working in collaboration with scientists at the University of Innsbruck in Austria, are investigating whether sun-damaged human DNA can be repaired using the kangaroo model.

Using a [mass spectrometer](#) instrument, they are simulating the impact the [kangaroo](#) enzyme would have on DNA which would otherwise develop skin cancer.

"We were quite surprised that the DNA's repair process also resulted in a number of chemical by-products, which have never been seen before," Wille said.

"Our plan is to study these products to understand if the DNA repair enzyme could be incorporated into a safe and effective method for skin cancer prevention."

Kangaroos are not immune from skin cancer but their special repair enzyme, which is also present in some bacteria and fish, gives their skin an additional protection that humans lack.

"As summer approaches, excessive exposure to the sun's harmful UV (ultraviolet) light will see more than 400,000 Australians diagnosed with [skin cancer](#)," Feketeova said.

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