

New hope for sun-burned eyes

October 13 2010



Photo by Curtis Gregory Perry <http://www.flickr.com/photos/curtiserry/>

People whose vision is badly damaged by over-exposure to bright light may be able to restore their sight, according to research from The Australian National University.

Australian researchers at The Vision Centre are working on a non-invasive method that involves shining near-infrared light (NIR) into damaged eyes to invoke a natural process which encourages the [eye](#) to heal itself.

“The use of NIR in healing eyes stressed by bright light has now been

established, in animals,” said Dr. Krisztina Valter from ANU and a Chief Investigator in the ARC Centre of Excellence for Vision Science.

“Now work has begun on the use of red light in human patients. Testing the effect of the light treatment is one aspect of this work, the other is to develop devices that are more accessible, more convenient and cheaper for patients to use.”

Dr. Valter said that red light at a wavelength of 670 nanometres is best as it is absorbed by an enzyme which is key to the energy production of the cell.

“It enhances the genes and processes needed to produce energy and fight against the activation of genes potentially lethal to [vision](#) cells,” she said.

The research has brought new hope for people whose eyes have been damaged by sun, as it is demonstrating that some of the damage may be simply, safely and cheaply reversible or further damage could be prevented, using NIR treatment.

Dr. Valter and her team are in the process of establishing Phase 1 of human trials to test NIR light in human patients. They anticipate the treatment will be used as a supplement or in some cases even as an alternative to surgical treatment.

Provided by Australian National University

Citation: New hope for sun-burned eyes (2010, October 13) retrieved 25 April 2024 from <https://medicalxpress.com/news/2010-10-sun-burned-eyes.html>

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