

## Mitochondria-targeted iron chelator offers photoprotection

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(HealthDay)—A mitochondria-targeted iron chelator can protect



primary skin fibroblasts against the harmful effects of ultraviolet A (UVA), according to a study published in the August issue of the *Journal of Investigative Dermatology*.

Olivier Reelfs, Ph.D., from the University of Bath in the United Kingdom, and colleagues designed a mitochondria-targeted hexadentate iron chelator linked to mitochondria-homing SS-like peptides. They evaluated the photoprotective potential of this compound against UVAinduced oxidative damage and cell death in cultured primary skin fibroblasts.

The researchers found that the compound provided protection against UVA-induced mitochondrial damage, depletion of <u>adenosine</u> <u>triphosphate</u>, and the ensuing necrotic cell death. This effect was fully related to the iron-chelating property in the mitochondria.

"This mitochondria-targeted iron chelator has therefore promising potential for skin photoprotection against the deleterious effects of the UVA component of sunlight," the authors write.

More information: <u>Abstract</u> <u>Full Text</u>

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