

Another new wrinkle in treating skin aging

June 5 2008

Topical applications of a naturally occurring fat molecule have the potential to slow down skin aging, whether through natural causes or damage, researchers report.

Through both the normal aging process and external factors like UV damage, smooth, young skin inevitably becomes coarse and wrinkled. The basis of this wrinkling is that time and damage both lower the production of new collagen while increasing the levels of enzymes called MMPs that chew up existing collagen.

Covering up, slowing down, or even stopping the wrinkling process has become a big business, and as part of this research endeavor, Jin Ho Chung and colleagues tested seven naturally occurring lipids (greasy molecules that play many important biological roles) in their ability to reduce skin aging.

In samples of skin cells, three of the lipids could prevent UV-radiation from both reducing collagen expression and increasing the levels of MMPs; they even increased collagen in undamaged skin cells. Of these three, the molecule phosphatidylserine (PS) seemed the most promising, so the researchers tested it on human skin.

They applied a 2% PS solution to small areas of the buttock in both young and old volunteers; the young skin was subsequently given a dose of UV-radiation to simulate sun damage. In both natural and UV-induced aging, PS treatment prevented collagen reduction and an increase in MMPs when compared to no treatment.



While larger and longer trials are needed to confirm any therapeutic benefits, these initial findings suggest topical PA application might be a simple and natural way to slow down the biological elements underlying wrinkling.

Source: American Society for Biochemistry and Molecular Biology

Citation: Another new wrinkle in treating skin aging (2008, June 5) retrieved 7 June 2024 from <u>https://medicalxpress.com/news/2008-06-wrinkle-skin-aging.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.