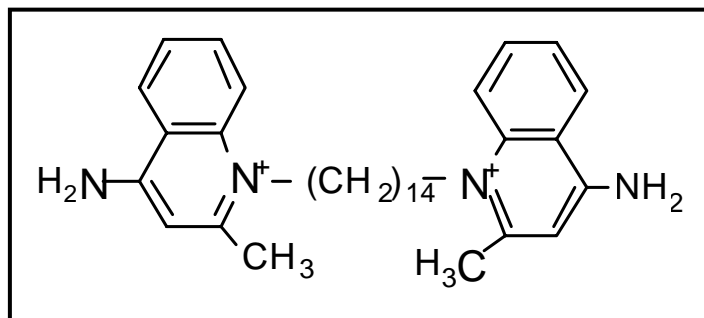


The CUNY Center for Advanced Technology in Photonics Applications (CUNY CAT)
Designated by NYSTAR, the New York State Foundation for Science, Technology and Innovation

Dequalinium-14

This technology opportunity relates to a new sunscreen additive that may provide additional protection against melanoma. CUNY researchers discovered that dequalinium-14 (DECA-14) is highly effective against metastasis of melanoma



cells in mice by inhibiting an enzyme called protein kinase C. This enzyme continues to be a strong anti-cancer target for the design of novel chemotherapies. A distinct advantage of DECA-14 is that its action can be enhanced by UVA radiation, enabling it to form a chemical link with this enzyme target and thereby inactivate it.

The original chemical form of this compound (dequalinium-10) was sold for many years as an anti-microbial agent in over-the-counter topical lotions (Micrin[®] mouthwash). Since 1988, it has been shown to have anti-proliferative effects with a variety of cancers, including melanoma.

Unlike many chemical filters that degrade within 30 min in the sun, DECA-14 is photo-stable and would contribute additional UVA protection in a sunscreen. It would offer coverage in the range of 300 - 350 nm and would complement physical barriers (titanium dioxide and zinc oxide) as well as other photo-stable chemical filters (aloe, vitamin E) that were recently found to be effective in sunscreens.

ADVANTAGES

- A photo-stable, chemical filter that absorbs UVA radiation.
- Anti-melanoma action that can be strengthened by UVA radiation
- Intravenous administration inhibits metastasis of metastatic melanoma in mice.
- A photo-stable, anti-cancer agent in sunscreens, sun blocks, skin creams, and cosmetics.

For more information please contact the CUNY CAT or see U.S. Patents 6,790,962 B2 and 6,974,871 B2 (Both available for licensing)

This technology opportunity sheet describes continuing efforts in this area. Several patents may have been issued or are pending and which may be available for licensing.

*For Details, contact Alan Doctor; email: alan.doctor@qc.cuny.edu; Phone: 718-997-4279 Fax: 718-997-4278
 Queens College • Razran 314 • 65-30 Kissena Boulevard • Flushing, NY 11367 www.cunyphotonics.com*