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REPLY

Elias and Williams have restated their conviction that the n-alkanes found on normal and diseased human skin are endogenous. We felt that we had laid this conjecture to rest when carbon dating showed that the alkanes we recovered from human skin were similar in age to petroleum. Also, the alkanes from every subject showed the petroleum-like chain length distribution. The fact that the proportion of alkanes in the skin surface lipids differed widely between subjects is suggestive of an exogenous origin. Further speculation regarding the source of alkanes obtained from other subjects would seem to be unwarranted now that carbon dating by mass spectrometry can decide conclusively between recent biosynthesis or fossil origin.

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Follicular Penetration and Distribution of Topically Applied CD 271, a New Naphthoic Acid Derivative Intended for Topical Acne Treatment

To the Editor:

We have investigated the pharmacokinetic behavior in rat skin of ^{14}C-CD 271, a new anti-acne product designed as a restricted conformer of retinoic acid with improved physico-chemical properties [1].

After a single topical application of a 0.3% alcoholic lotion, the radioactivity is mainly located in the stratum corneum and in the hair follicles. At 24 h, peak levels of radioactivity expressed as equivalent of CD 271 were 6%, 0.8%, and 1.4% of the dose applied, for stratum corneum, epidermis, and dermis. As it is known that follicular penetration of lipophilic compounds could play a role in percutaneous absorption [2–4], the distribution of ^{14}C-CD 271 in the skin appendages was visualized by autoradiography. After 6 and 24 h of application, radiolabel was detected in the hair follicles and to a lesser extent in the sebaceous gland. The localization of CD 271 (and perhaps other retinoidal compounds) at the target site, the

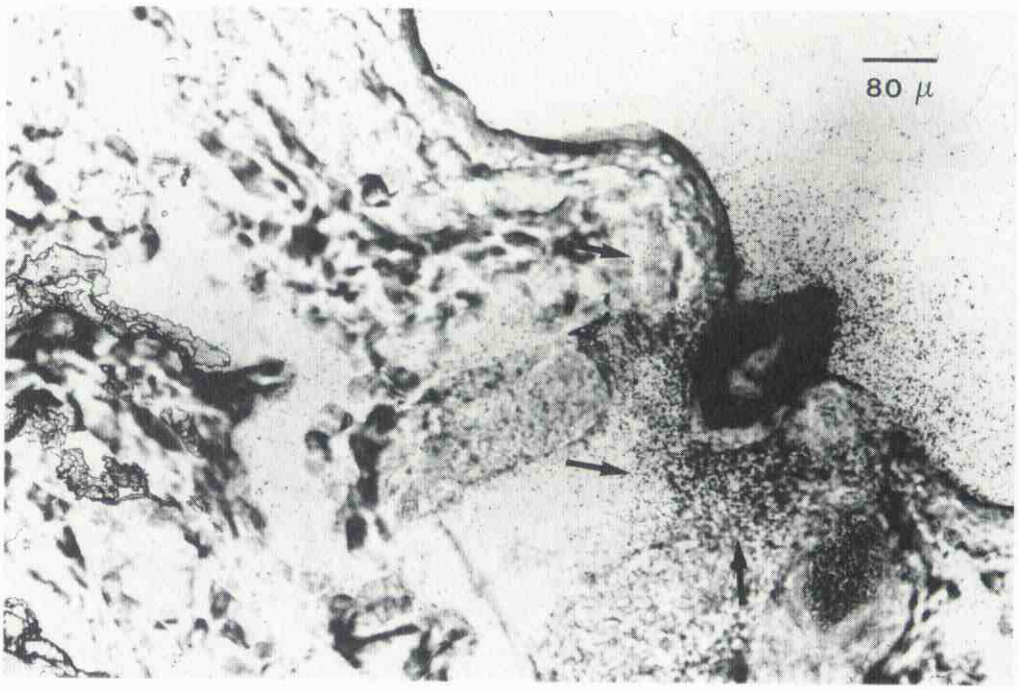

Figure 1. Distribution of radioactivity in the follicle *(arrows)* is demonstrated by light microscopic autoradiography of 7-μm sections of the skin of hairless rats after 6 h application of ^{14}C-CD 271 lotion (0.3%) under occlusion. Magnification × 250, unstained.