

# AGI Dermatics

## Use DNA Science to Treat Damaged Skin

BY BOB KRONEMYER, ASSOCIATE EDITOR



Remergent Skincare by AGI Dermatics

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DNA repair of skin is the cornerstone of Applied Genetics, Inc. (AGI) Dermatics (Freeport, N.Y.). The company, which started in 1985, offers five skincare products, two sunscreens and one prescription drug treatment.

"I was a basic researcher in DNA repair and cancer research," said Daniel Yarosh, Ph.D., founder and president of AGI Dermatics. "However, I was anxious to apply – commercially – all this knowledge we had accumulated in basic science. As a company, we are interested in how DNA controls skin development, how DNA gets damaged in skin, and how DNA can be repaired."

Last March, the company launched the Remergent skincare product line. Barrier Repair Formula, for example, combines several botanicals "to help the skin make more of its own barrier," Dr. Yarosh noted. "Rather than trying to add oils from the outside, this product builds the barrier from the inside out." Applied once every morning, "it looks at the skin in an integrated way – treating both the lower level of collagen and the upper level barrier."

In February, the company will formally debut its first drug, Remergent HQ (hydroquinone USP 4%), which is a prescription strength hydroquinone cream for the treatment of UV induced dyschromia. "This is the first product that truly addresses the issue of skin lightening for photo-aging," Dr. Yarosh said. "The difficulty with prior formulations of hydroquinone is that they cause irritation. The solution in the marketplace to date has been to combine hydroquinone with two very strong drugs: retinoic acid and a steroid. But this combination may not be appropriate for everyone. We've solved the irritation concern by using a unique amino acid called L-ergothioneine. This allows us to formulate Remergent HQ at a much higher pH. " The product is applied twice daily for a typical 12 week regimen.

AGI's DNA repair enzymes, formulated in the company's drug, Dimericine, "have been shown to prevent skin can-

cers in patients with xeroderma pigmentosum (XP)," said Ron Moy, M.D., a clinical professor of dermatology at the David Geffen School of Medicine at the University of California, Los Angeles. "This is a disease first diagnosed in children who lack DNA repair. These children develop hundreds of skin cancers at a very early age. Dimericine replenishes some of those enzymes and appears to prevent skin cancers. The Lancet published a very encouraging study several years ago."



Ronald Moy, M.D.  
UCLA Medical School  
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Similar repair enzymes have been formulated in Remergent DNA Repair Formula and Dr. Moy encourages all his patients to apply the serum nightly. "I often have patients combine the cream with a topical retinoid," said Dr. Moy, who is also dermatology director of a wellness spa at the Four Seasons Hotel in Westlake Village, Calif. "Because much of our emphasis at the spa is on prevention, we recommend Remergent DNA Repair Formula to patients for prevention of skin cancers, as part of a whole maintenance program of wellness. People like it."

Replenishing DNA repair enzymes in select individuals via topical application to prevent or decrease the number of skin cancers "is a miracle, yet it is under the radar screen of dermatologists," Dr. Moy observed. "I believe AGI Dermatics' technology will become more popular in time. The company is grounded in solid science."

"Our philosophy is that it is not too late," Dr. Yarosh added. "There is a pervasive feeling that skin damage from the past cannot be repaired, unless drastic measures are taken. But the new message from the genomics revolution is that skin can indeed be reprogrammed. These changes are not irreversible."