

Skin Deep: Smart Enough to Understand Your Moisturizer?

By LIESL SCHILLINGER

The New York Times

December 22, 2005

MEMO to Homeland Security Department: Mata Hari has nothing on Estée Lauder. Around the globe under cover of darkness company agents are at work in unsuspecting households, neutralizing up to 90 percent of the free radicals they find: "berserk" radicals, which in the words of Daniel Maes, a nuclear chemist and vice president for global research and development at Estée Lauder, are unstable and can create a lot of damage. But Estée Lauder does not fight alone. Fellow beauty companies have joined in the struggle, including L'Oréal, Origins, Clinique, Olay, Prescriptives, Kiehl's, Lancôme and Neutrogena.

Their battlefield is the human skin. Their weapons include nanosomes and QuSomes, retinoids, vasodilators, hyaluronic acid, mystical mushrooms, corrosive fruit sugars and an arsenal of peptides. Their war is the fight against an invincible foe: the aging process. It amounts to an international stealth campaign. And increasingly the language of the cosmetics industry resembles the hyperbole of the high-tech spy thriller.

In the United States alone more than \$45 billion is spent annually on cosmetics and toiletries. Genuine technological advances in skin care, along with the spread of cosmetic treatments like microdermabrasion, Restylane fills and Botox injections, have made consumers expect visible results.

But all this new science has created a quandary for shoppers: Are you smart enough to understand your face lotion? When you're trying to decide between L'Oréal Dermo-Expertise RevitaLift Double-Lifting intense retightening gel and antiwrinkle treatment with protensium and nanosomes of pro-Retinol A ORK-immediate action and Shu Uemura's ACE b-G Signs Preventing Essence with skin-strengthening b-glucan, antioxidant-rich vitamins A, C, E and

Jasmine extract or Dr. Ci: Labo's W-Deep Botolium, made with Argireline Sol, are you sure you're qualified to make your purchase?

Not all of the offerings are so cryptically named, but even the organically derived products, which you'd think would be simpler, can bewilder. The new Plantidote line at Origins, created by the guru Dr. Andrew Weil, includes Mega-Mushroom Face Serum, made of exotic mushrooms, ginger, turmeric, holy basil and argan nut oil. "Use this serum twice daily, and you'll soon see a renewed radiance and clarity," the package promises. Better yet, apply liberally to your cheeks, press your face against a piece of bread and voilà! Tasty bruschetta.

A Hydrating Nutrient Mask by N. V. Perricone uses olive oil polyphenols. And at Kiehl's the Lycopene Facial Moisturizing Lotion is "derived from the tomato," according to the label, and includes beta carotene and vitamin E. All of these sound like something to put into your face, not on it.

A hundred years ago the promises were vaguer, notes Kathy Peiss in "Hope in a Jar," a history of cosmetics. "Do you yearn for a clear complexion?" asked an advertisement for fancy soap in 1922, while in 1928 Elizabeth Arden's Venetia Cleansing Cream boasted that its "melting purity penetrates every least little pore."

But back then cold creams, tonics and lotions were still concocted from a mixture of guesswork and folk wisdom, using ingredients that sometimes worked, sometimes didn't, including glycerine, kohl, aloe and witch hazel on the safe side and arsenic, mercury and bleach on the downright dangerous side.

A great leap in skin care was made in the 1960's and 70s, when Dr. Albert Kligman, a dermatologist at the University of Pennsylvania, discovered that retinoic acid, a vitamin A derivative, could be used in the treatment of acne. Johnson & Johnson soon developed a cream called Retin-A to deploy it. In the 80's Dr. Kligman found that Retin-A had a further use: it could fight wrinkles and reverse signs of photo-aging in the skin. Retin-A and products like Avage and Renova, which use retinoids (also derived from vitamin A), can be obtained by prescription only. But retinol, a less potent vitamin A offshoot, soon began to appear in over-the-counter

preparations. In recent years alpha hydroxy acids and antioxidants (like vitamin C) joined the mix. Some recent breakthroughs include peptides (proteins that seem to prompt the skin to make more collagen), topical muscle relaxants like GABA (gamma amino butyric acid, which stuns wrinkles into tautness) and vasodilators (which can make the lips look fuller and pinker by enlarging blood vessels).

Combining cosmetics with medical knowhow, these beauty preparations are often called cosmeceuticals, a term Dr. Kligman coined in 1980, to the vexation of pharmaceutical companies, which resent the money they have to spend to get prescription remedies approved. The 1938 Food, Drug and Cosmetic Act defines a drug as something meant to "treat a disease or affect the structure or function of the body." For a cosmeceutical to squeak past that ruling, it cannot alter the structure or function of the skin. And yet if you're paying \$100 or more for half an ounce of a rejuvenating serum that is claimed to change your skin's texture or to "lift" your skin without surgery, are you being cheated?

Not quite. Dr. Jeffrey Dover, who practices at SkinCare Physicians in the Boston area and is an associate clinical professor of dermatology at Yale School of Medicine, created a line of cosmeceuticals for CVS drugstores in August called Skin Effects. He offered to help decode the labels. "Technically the over-the-counter products can't claim to actually change the skin," he said. "But the ads are brilliant. If you read them carefully, you'll find that nowhere does it say, 'makes wrinkles go away.' Nowhere does it say, 'brown spots are gone.' They'll say the skin's appearance changes." The Food and Drug Administration monitors advertisements, Dr. Dover noted. "Every once in a while," he said, "you'll see an ad come out, and it'll never appear again, and that's because the manufacturer got a cease-and-desist letter from the F.D.A."

Dr. Maes, who was born in Belgium, has worked at Estée Lauder for nearly 20 years. He develops - and helps name - cosmeceuticals like the Idealist Micro-D Deep Thermal Refinisher.

"When we have a new technology," he said, "we show it to all the marketing people and we say: 'This is what we have. How can we turn it into something the consumer is going to grasp?' When we came up with Idealist, we were talking about perfection - how to look the best you possibly can." (Chanel, even more lofty in its cosmetic aims, sells a Double Perfection crème poudre.)

Idealist became the Lauder cream's signature. "We were talking about this ideal of smooth, luminescent, totally transparent skin that feels like silk," Dr. Maes said. Micro-D was added to hint at microdermabrasion because the glucosamine in the formula is intended to help the skin shed dead cells, as microdermabrasion does. And "thermal" was thrown in after the scientists found an ingredient that increases the skin's temperature for 15 seconds, an effect that augmented glucosamine's powers in tests.

All of this technology, and all these highfalutin monikers, have been developed to help make people look better. Paradoxically, the makers of Renova surveyed men and women 30 to 50 and found that 70 percent of the thousands polled thought they had fewer signs of facial aging than their peers, a statistical impossibility. With optimism like this, it's not surprising that companies find people who report that their wrinkles look 38 percent or 74 percent or 90 percent better after a session of deluxe cream therapy.

And people will pay immense sums to look better than they already think they do. "I have a patient who loves the product Crème de la Mer, which costs hundreds of dollars," Dr. Dover recalled. "I said, 'But it's so expensive.' She said: 'I know, but I love the idea of spending this kind of money. It must be better.' Most of my dermatology colleagues aren't so sure about that." He added: "We want people to look their best. But this is not surgery. There's no laser, no Botox, no filler. There are lots of new ideas out there, but nothing can stop aging."

Dr. Elizabeth Tanzi, a co-director of the Washington Institute of Dermatologic Laser Surgery, agreed. "Skin care products have come a long way, and I think they do a beautiful job at enhancing and prolonging the benefits of some of the procedures that can be done by your cosmetologist, dermatologist or plastic surgeon," she said. "But alone there is no such thing as a miracle in a jar."