

Some you win, some you lose

SIR — I have long suspected that DREADCO has been less than forthcoming in its communication with David Jones. Now there is proof in Jones's description (*Nature* 364, 492; 1993) of DREADCO's development of Fluorogro[®], a fluorescent spray that doubles the rate of plant growth by reradiating as chlorophyll-absorbing visible light the ultraviolet wavelengths that Daedalus claims are reflected relatively well by chlorophyll. Actually, of course, it is near-infrared wavelengths that are reflected well by plant leaves, the ultraviolet wavelengths being reflected very poorly (Gates, D. W. *et al. Appl. Opt.* 4, 11–20; 1965). Nevertheless, just in case the thinning ozone layer has altered this well-known property of leaves, I performed a quick test with a radiometer equipped with channels at 315 nm in the ultraviolet and 1000 nm in the near-infrared. The leaves of a nearby cedar elm tree reflected only minuscule amounts of ultraviolet, while the reflectance at 1000 nm was, as expected, approximately 50 per cent.

The fundamental idea behind DREADCO's scheme does work, for there are fluorescent materials that reradiate visible wavelengths when illuminated by near-infrared. It can therefore be concluded that DREADCO is out to deceive its competitors by its misleading disclosure to Jones. I shall be glad to level the playing field by supplying the name of a source of infrared-sensitive fluorescent material, which I call FloiRogro[®], to DREADCO and its competitors, who are invited to send non-exclusive royalty offers to the address below.

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SIR — Daedalus (*Nature* 365, 18; 1993) suggests that diving seals have a protein in their blood that inhibits bubbles from growing when they return to the surface, thus preventing them from getting 'the bends'. He further notes that the mechanism would probably be similar to that found in polar fishes, where antifreeze proteins inhibit the growth of ice crystals.

While I was working on fish antifreeze proteins in Antarctica a few years ago, I obtained some blood from the deep-diving Weddell seal from another research team that had a small surplus. I pressurized a few millilitres of gently swirling seal serum and Ringer's solution, a control, to 30 p.s.i. nitrogen gas at room temperature. After one hour (about the length of a good dive), I placed drops of the two liquids under a cover slide and

First anthropoid station at risk

SIR — The studies of problem-solving by chimpanzees conducted by Wolfgang Köhler on the Canary Island of Tenerife between 1914 and 1918 are historic. His work on the subject, *The Mentality of Apes*, is a classic and the picture in it of a chimpanzee angling for a suspended banana with the use of boxes and sticks has become a textbook cliché¹. Films, some made by Köhler at the time, are available for teaching. The observations played a role in the genesis of *gestalt* psychology, co-founded by Köhler, and provided ammunition in the continuing polemic on animal consciousness. The past decade or so has seen a renewed interest in Köhler, his apes and the first primate research station^{2–4}.

The site of the former anthropoid station lies on the northeastern edge of the expanding tourist resort of Puerto de la Cruz, next to a banana grove and within a few hundred yards of a shopping area and modern hotels. Köhler's unmarked house is tenanted and adjacent service buildings, in which apes were presumably quartered, still exist, but for how much longer is uncertain.

The land that includes the former station site is being offered for subdivision and the building of luxury apartments and houses as Phase 1 of "Urbanizacion La Costa" is being advertised in three languages. Construction machinery and material are on the station site.

The destruction of remnants of the

looked at them under a microscope. DREADCO, which planned to market a synthetic version of the seal protein, will be disappointed to learn (as I was) that there was no visible inhibition of bubble formation in the seal serum.

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SIR — After years of waiting enthusiastically for my weekly issue of *Nature* to arrive and then struggling to understand articles in fields distant from my own (facial plastic surgery). I was pleased and surprised to see you address a topic in my own area (364, 106; 1993).

Daedalus recommends developing a "DREADCO" Wrinkle Blaster" that would penetrate the upper dermis and tighten the skin. This recommendation is in essence a form of dermabrasion in which all of the epidermis and various levels of the dermis are mechanically removed to improve skin texture. The epidermis then regenerates from the epithelium of the skin appendages. (Dermabrasion is best described as "sandpapering" versus the proposed "sand



world's first primate research station would constitute a unique loss in the history of science — and perhaps potentially a loss to the tourist industry. Köhler's former residence, Casa Amarilla, still handsome though dilapidated, deserves preservation as an historic monument and commemoration by a plaque. Expressions of concern and support on the subject to the undersigned will be forwarded to authorities on Tenerife in a position to help bring about the preservation and recognition there of what is left of Köhler's Anthropoid Station.

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1. Köhler, W. *The Mentality of Apes* (Kegan Paul, London, 1924).
2. Ash, M. G. thesis, Harvard (1982).
3. Ley, R. *A Whisper of Espionage — W. Köhler and the Apes of Tenerife* (Avery, New York, 1990).
4. Lück, H. E., Jaeger, S. *Revista de Historia de la Psicología* 9 (2–3): 295–305 (1988).

blasting"). Various forms of freezing treatments, including solid carbon dioxide, have been used for skin treatments and in conjunction with dermabrasion.

The currently popular technique to perform wrinkle removal is chemical peeling. The deeper peels such as phenol and higher concentrations of trichloroacetic acid (TCA) go more deeply into the dermis and help remove the deeper wrinkles. Interestingly, the current trend is to perform more superficial peels with weaker acids such as glycolic acid which create an effect similar to the proposed "wrinkle blaster." We have noticed some long term "slow and subtle facial rejuvenation" in some of these patients.

Now that Daedalus has turned his theoretical mind to the important area of texture in the ageing skin, I would ask that he address the underlying tissues. A facelift is performed primarily not to remove wrinkles but to tighten the basic sagging of the underlying tissues which have lost elasticity with age. A procedure that would nonsurgically tighten these tissues would be a definite advance.

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