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Letter to the Editor

While publication of the male Finnish smoker study (*New England Journal of Medicine,* April 14, 1994) has raised considerable controversy, more intrigue has come from reaction to the study's findings than from the findings themselves.

The 1985-1993 research revealed that once-a-day delivery of synthetic beta-carotene to 7,287 sedentary 57-year-old men consuming 40% fat diets and smoking 20 cigarettes per day and 262,800 cigarettes over 37 years did not prevent 474 of them from developing lung cancer. It also revealed the occurence of 402 cases of lung cancer in a comparable, non-supplemented group.

Then came the reaction - a nutrition roast targeting the credibility of antioxidant research and the IQ of the supplement-taking public. On September 1, 1994, five months after initial publication of the male Finnish smoker study, the *New England Journal* published nine responses from researchers around the globe, including representatives of the U.S. National Cancer Institute, Chinese Academy of Medical Sciences, Bronx Municipal Hospital Center, Wistar Institute, Crozer-Chester Medical Center, and Mount Sinai School of Medicine. The responses varied widely. One bemoaned a pubic "confused by yet another unfulfilled promise," and faulted the authors for clinging to a belief in the possible efficacy of beta carotene. Another noted "disappointment in some quarters" but also observed an "offer of hope" in the data. Many jumped to the aid of beta carotene, arguing that its effectiveness was somehow impaired: the quinoline yellow dye got in the way, the subjects' alcohol consumption got in the way, the subjects' precancerous condition got in the way.

Notwithstanding the truth in these reactions, what seems most unmistakable is the hero imagery. As if what had been created in the laboratories of Hoffmann-LaRoche (manufacturers of the synthetic beta carotene consumed in the study) was not the red-faced, yellow-bellied beta carotene, but Beta Carotene the White Knight, galloping into the smoke and flames, trying to rescue 7,287 more-than-middle aged men from the backdraft.

In the next three years, eight major studies on beta carotene and cancer are scheduled for completion. Nearly 100,000 subjects will have been included in study protocols from countries including the United States, France, and Australia. The story will continue to unfold. But the outcomes of these studies may matter much less than the fantasy we bring to them.

In the natural world, singling out entities on which to confer heroic status is tricky. Should we judge a growing plant to be "heroic" because it figures out how to work its way around a large rock? Or should we judge the rock to be heroic because it manages to remain itself in spite of the tree? And what about gravity? Should it not also be called "heroic" for managing to hold rock and tree together? In the natural world, isolated images of heroism - and villainy - make little sense. The villainous wildfire which devours is also the heroic one which begins reforestation. The genetic mutation which kills is also the one which constitutes diversity. No, *vis medicatrix naturae* means no heroics or villainy at all, except, perhaps, for the *whole* of nature itself. itself. The *vis* itself, the whole power/force/capacity of nature, might qualify a nice spot for heroic fantasy. And this heroic force would certainly reside in the beta-carotene. But it would also have to reside in the dietary fat, and the alcohol and lungs and cigarettes.

Rescue the male Finnish smokers from themselves? With beta carotene? If we're going to project any heroics into the study, we'd best turn to the whole, and the unhearlded fact that 6,131 out of 29,133 initial participants stopped smoking during the trial. Twenty-one percent! Decided to stop smoking after 37 years! *Vis medicatrix naturae* means imagining outward, toward the whole, toward the whole peson, making choices, living a complex and irreducible life. In fact, in natural medicine, focusing outward, on the whole, is required at every level of involvement. Outward from the beta carotene, to the whole family of carotenoids - alpha carotene, lutein, lycopene, canthaxanthin, zeaxanthin; outward from the carotenoids to the whole foods containing them - amaranth, dandelion, kale, sweet potato, carrot, buriti palm; outward from the carotenoid foods to a whole, natural foods diet; and outward from a natural, whole foods diet to healthy living, to the loving, working, and caring in which it participates.

Buck Levin, PhD, RD
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