

blunder of setting up guidelines before the experiments indicating safety were performed and of not having a moratorium on this type of research before these experiments were performed. Considering the time-span of biological research, past, present, and future, would a year's delay really have made a difference?

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Grants and the "Track Record"

Lionel F. Jaffe (Letters, 30 Mar., p. 1292) offers a practical suggestion for a specific reform in the grants mechanism which might substantially reduce the time wasted in grant preparation and review. He suggests that the applications of established investigators (perhaps at their option) be judged on recent performance and productivity rather than on a proposal. This suggestion has great merit.

Although the recent publication record is often considered in the study section review process, it is currently considered only as an indication of the applicant's ability to carry out the proposed studies; it is the proposal itself that is at the focus of the evaluation. I believe it would not be hard to document the fact that, in the case of senior investigators, the recent "track record" is the single most reliable indicator of probable future performance. Perhaps what is needed is an objective analysis of the value of the record as a predictor of performance. If it is as good as I intuit, study sections could then be instructed to give the record the weight it is due and senior investigators would be able to spend more time on their research and less on the writing of their applications.

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Tea with Milk

The letter by Wheeler of Thomas J. Lipton, Inc., (6 Apr., p. 6) stoutly defending tea as containing no "tannic acid" leaves some things unsaid. I think I should supply the missing information: what characterizes tea, and what is manipulated by time of plucking, blending, and so forth, to achieve the desired degree of "briskness," is certainly not hydrolyzable tannin but condensed catechin tannin.

The deleterious aspects of condensed catechin tannin are becoming increasingly apparent to nutritionists (1) and to scientists engaged in cancer research (2). This class of tannin is prominent in the betel nut (*Areca catechu*), which has for many years been linked to high rates of oral and esophageal cancer in India and in Durban, South Africa (3); and tumors occurred in 100 percent of experimental rats that received subcutaneous injections of the tannin fraction from betel nuts (4). The tannin fraction from tea was also tested, and tumors occurred in 26 out of 30 animals (5).

Segi has reported an impressive correlation between the habitual consumption of tea-rice gruel and the areas of high incidence of esophageal cancer in Japan (6). Thanks to early warnings from the British Medical Association, the British have traditionally added milk to their tea to bind the tannin. The Dutch do not and, in the mid-18th century, when tea was the national drink of Holland, that

country had an alarming level of "obstructed swallowing into the oesophagus." When the Dutch switched from tea to coffee, the disease became rare (3). There is strong epidemiological evidence, together with results of bioassays, linking folk-remedy plants high in catechin tannin with high rates of esophageal cancer in other populations (7).

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Erratum: In the News and Comment article about assessing the damage resulting from the accident at the Three Mile Island nuclear plant (11 May, p. 594), the last paragraph contains the statement that plant shutdowns ordered earlier this year by the Nuclear Regulatory Commission involved nuclear reactors built by Babcock & Wilcox. That statement was incorrect. The earlier shutdowns did not involve Babcock & Wilcox reactors.

Erratum: The second sentence in reference 2 of the letter from Holdren, Smith, and Morris (11 May, p. 564) was incorrect. It should have read "AECB 1119 contains 30 citations to this report [by Smith, Weyant, and Holdren], 13 direct ones plus 17 more. . . ."

Erratum: In the report, "Dynamic chemical equilibrium in a polar desert pond: A sensitive index of meteorological cycles," by H. J. H. Harris *et al.* (20 Apr., p. 301), the key shown in Fig. 2B was in error. The correct figure is shown below.

