Dioxin Exposure

In Richard Stone's 10 September article "New Seveso findings point to cancer" (News & Comment, p. 1383), it is reported that I speculated that "some other carcinogenic compound in the Seveso cloud . . . may have been responsible for the elevated cancer risk." However, my comments about the possibility of other carcinogens causing some of the elevated cancer rates associated with dioxin specifically addressed the findings in the National Institute of Occupational Safety and Health (NIOSH) Dioxin Registry (*1*) and not the Seveso accident. In discussing the findings of the NIOSH Dioxin Registry, I and my co-investigators have written that consideration of potential confounders such as other occupational exposures, smoking, and failure to control for regional variation in the general population cancer mortality are important for evaluating the potential cancer risk for any substance, including dioxin (*2*). A study we recently completed indicates that considering other occupational exposure, such as 4-aminobiphenyl, may be important for evaluating the cancer findings of soft tissue sarcoma in the NIOSH Dioxin Registry (*3*).

Insofar as the Seveso study is concerned, we believe it is too early to determine whether the findings of Seveso are consistent with those of the NIOSH Dioxin Registry. All the increases in cancer incidence in the NIOSH Dioxin Registry occurred 20 or more years after exposure, while the Seveso study reports on people exposed only 10 years ago. We agree with Pier Alberto Bertazzi's statement that "[t]his is not the final word from Seveso."

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2. J. J. Collins, J. F. Acquavella, B. R. Friedlander, *Epidemiology* **3**, 65 (1992).
3. J. J. Collins, M. E. Strauss, G. J. Levinskas, P. R. Conner, *ibid.* **4**, 7 (1993).

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Genetics and Crime

In describing my opposition to renewed funding of the "Genetic Factors and Crime" conference at the University of Maryland, Eliot Marshall writes ("NIH told to reconsider crime meeting," News & Comment, 1 Oct., p. 23) that I "claimed the conference was a part of a scheme to pacify unruly people with psychoactive chemicals." This characterization seems to misrepresent my concerns.

The conference brochure specifically advocated genetic and biological theories for the causation of violent crime and looked forward to the treatment of "predisposed" individuals with "drugs." Since there are no known biological or genetic factors that contribute to violent crime, and no drug treatments, it would have been highly misleading, potentially racist, and politically menacing for the federal government and the state of Maryland to fund the conference. Many others agreed, especially leaders in the African-American community. We also believe that biomedical social control is a threat to fundamental values, such as liberty, due process, respect for the individual, and community.

While our efforts helped to temporarily stop the Maryland conference and compelled the federal government to reject the most overt aspects of a planned violence initiative, many expressions of the initiative remain in place in several health agencies and the Department of Justice. These include mammoth federal funding for the biomedical control of "disruptive" children, as well as research aimed at identifying biological and genetic factors in supposedly violence-prone children and adults.

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A Life-Saving Accelerator

The article by Fred Myers about the heavy ion medical accelerator being built in Japan (News & Comment, 3 Sept., p. 1270) was of special interest to me. I was one of the last cancer patients to receive radiation therapy at the Heavy-Ion Linear Accelerator (HILAC) facility at Lawrence Berkeley Laboratory (LBL) before it was shut down last June. Without the LBL facility, I would have been unable to obtain treatment anywhere in the world. My tumor was behind my left eye and in an interior sinus cavity, and it required extensive surgery: a frontal craniotomy. The radiation had to be deposited in a very small volume to avoid doing too much damage to optic nerves and the pituitary gland and to avoid irradiating sensitive areas that had previously received massive radiation for a previous cancer.

Although the radiation caused complete loss of vision in my left eye and affected the function of my pituitary gland, my doctors and I have no doubt that my life was prolonged for a significant period by the treatment.

The decision to shut down the LBL facility was made jointly by the Department of Energy and the National Aeronautics and Space Administration. I made an effort to communicate with officials about the value of the facility. My impression is that the decision-makers considered its medical applications to

be secondary and shut it down because its physics and space research contributions were thought to be marginal. For the patients who need treatment this year, the advent of the Japanese machine next year is cold comfort. And how many patients will be able to afford to travel to Japan for treatment?

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For the Greater Good

Philip H. Abelson, in his editorial "The American research university" (22 Oct., p. 487) quotes from an article in *Daedalus* by Donald Kennedy (*1*) to make the point that faculty at universities are unwilling or unable to participate in making hard financial decisions and are seriously inclined to favor their own parochial interests over the broader needs of their universities. A suitable and important counterexample can be found in the recent experience at the University of Maryland at College Park. In the spring of 1992, the campus senate voted, by a large majority, to eliminate 29 degree programs and to close seven departments and one college. The net savings, being redistributed to other academic activities of the university, was $6 million. This action was approved by the higher administration of the university and the Board of Regents and has been carried out.

The process used to accomplish this major redistribution in resources involved faculty, staff, and students in every stage of the decision-making. The university president and provost played a central role, of course, but they were sensitive to, and used, regular decision-making procedures that had been established for several years (*2*). As the provost at the time, I can personally testify to the responsible and well-intentioned activities of the faculty, many of whom acted for the greater good of the university in spite of the fact that their departments faced the threat of elimination or, in fact, were eliminated.

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References and Notes

1. D. Kennedy, *Daedalus* **122** (no. 4), 127 (fall 1993).
2. The details of this process in reports are available from the Office of Academic Affairs of the University of Maryland, College Park, MD 20742–5031.

Cyclic ADP–Ribose and Pancreatic β Cells

In their response (*1*) to our technical comment (*2*), Takasawa *et al.* state that one reason we do not observe any effect of cyclic ADP–ribose on β cells is because we are working with β cells with "negligible sensitivity to glucose," and in this context they refer to several papers, including one of ours (*3*). In this paper, we showed that β cells from *ob/ob* mice are highly sensitive to glucose as measured not only by changes in electrical activity and cytoplasmic free Ca^{2+}, but also by stimulation of insulin release.

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2. M. S. Islam, O. Larsson, P.-O. Berggren, *ibid.*, p. 584.
3. P. Arkhammar, T. Nilsson, P. Rorsman, P.-O. Berggren, *J. Biol. Chem.* **262**, 5448 (1987).

Corrections and Clarifications

In the article "Light microscopes get a sharper look" by Karen Fox (Research News, 3 Sept., p. 1275), the laser feedback microscope (LFM) was incorrectly described as having a horizontal resolution that was only slightly larger than the resolution of a scanning electron microscope (SEM). The LFM's horizontal resolution ranges from 100 to 200 nanometers, which is similar to the range of an inexpensive SEM, but substantially larger than the 0.5- to 1-nanometer range of an expensive, high-quality SEM.

The GenBank accession numbers for Skn-1a and Skn-1i were inadvertently omitted from the report "Skn-1a and Skn-1i: Two functionally distinct Oct-2–related factors expressed in epidermis" by B. Anderson *et al.* (2 Apr., p. 78). They are L23862 for Skn-1a and L23863 for Skn-1i.

In Table 1 (p. 703) of the article "Metalloenzymes, structural motifs, and inorganic models" by Kenneth D. Karlin (6 Aug., p. 701), the equation in the first column under "Dioxygen transport" should have read

$$DM^{n+} + O_2 \rightleftarrows$$

$$M^{(n+1)}{}_D\,(O_2{}^{D-})$$