Letters

U.S.–Chinese Relations

The news briefing entitled "Why is this man smiling?" (Research News, 13 Oct., p. 214) does not do justice to what is really a very serious matter. As is well known, especially during the last 10 years, there has been an ever deepening relationship between the United States and the People's Republic of China (PRC). Many of these bonds are based on scientific exchange. As a Chinese-American physicist, I have both watched and helped foster this climate. My work has centered on the China–U.S. Physics Examination and Application program (CUSPEA), which has permitted nearly 1000 Chinese physics students to join U.S. graduate programs; on the China Center for Advanced Science and Technology (CCAST) and the Beijing Institute of Modern Physics (BIMP), which sponsor research programs and international conferences; and on the U.S.–PRC Joint Committee on High Energy Physics, which has led to the recent construction of the Beijing Electron Positron Collider (BEPC).

It was as a CCAST conference participant that I was in Beijing in late May and early June and personally observed the tragic events of 3 and 4 June. Many Chinese scientists took part actively in the demonstrations. For example, a large number of the physicists and engineers from the Institute of High Energy Physics participated, holding placards saying "Accelerator Accelerates Democracy" and "Collider Collides Corruption." Ye Duzheng, president of the Meteorological Society, personally led several marches of scientists and made speeches at Tiananmen Square supporting the movement. No one feels the agony and the disappointment over what happened more than our colleagues in China.

Because of my deep concern over the possible consequences for these Chinese scientists, I made a second trip to Beijing in September. I was fortunate to meet with Deng Xiaoping, as well as with a number of other Chinese leaders. They agreed to several of my suggestions (*1*). More immediately, they also allowed all the new CUSPEA students to come to the United States this year. They did not arrest or punish any of the scientists and engineers from the Institute of High Energy Physics. They have permitted Ye Duzheng as well as many other scientists who participated in the demonstrations to travel abroad to attend meetings freely.

The universality of science and the free exchange between scientists of all nations has been a powerful force in helping to preserve civilization in difficult times. This is something that I believe in deeply. Only through continuous contact with our colleagues in China can we help them in a genuine way. Of course, it is still too early to fully assess the final outcome of my recent trip. However, these are new positive developments that may serve as a first step.

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REFERENCES

1. D. Oberdorfer, *Washington Post*, 18 October 1989, p. A27.

Response: In the *Washington Post* article cited, Lee quotes Deng as saying, "We have really made mistakes." But Deng's comment contrasts sharply with his recent statements to former President Richard Nixon, in which he charged that the United States was too involved in the June unrest in China.

—MARJORIE SUN

Human Genome Program

"If something is not worth doing at all, it is not worth doing well." This aphorism, which I learned almost half a century ago from a wise colleague, applies today to the human genome project currently being activated. No one has been able to spell out the benefits to be expected from that project, either in terms of science, or of medicine, or of public health. The program has been promoted without public discussion by a small coterie of power-seeking enthusiasts.

The lack of clearly stated goals appears now to have befuddled the thinking of my friend, the usually level-headed editor of *Science*, Daniel E. Koshland, Jr. (Editorial, 13 Oct., p. 189). The phantom promise of early diagnosis of a few hereditary diseases is being replaced in Koshland's editorial by hints of a eugenic program targeted to "the poor, the infirm, the underprivileged." Are they to be transformed (or perhaps altogether eliminated) by eugenic applications of genetic technology?

Ten years ago, I battled against the unreasonable fears that genetic engineering might create unnatural forms of life. The real danger today is the possible emergence of an establishment program to invade the rights and privacy of individuals, whether in the area of sexual preference, or right to abortion, or drug addiction, under cover of beneficient eugenic intervention.

Will the Nazi program to eradicate Jewish or otherwise "inferior" genes by mass murder be transformed here into a kinder, gentler program to "perfect" human individuals by "correcting" their genomes in conformity, perhaps, to an ideal, "white, Judeo-Christian, economically successful" genotype?

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Response: Knowledge is power and therefore can be abused, as my friend Salvador Luria points out. The new knowledge projected for the human genome project requires special vigilance in the area of ethics, but unreal scenarios advance neither the cause of ethics nor that of science. There should be no temptation to a Big Brother to try to erase the genes for "democratic instincts," any more than to try to erase the genes for schizophrenia, manic depression, or diabetes. The latter genes are so numerous in the population that such action would have little genetic effect.

The new knowledge can, however, lead to drugs to help people afflected by illnesses, and that is why the genome project should go forward. Legislation to prevent abuse should be enacted as needed, just as in the case of fingerprints, social security numbers, and the census, all of which have been opposed at some time because of possible misuse. —DANIEL E. KOSHLAND, JR.

While there may be intellectually consistent and sound reasons for supporting the billion dollar-plus congressional funding of the human genome project, Koshland's editorial about the project is, at best, misguided. If we have learned anything from the scientific hubris of this, the "atomic" age, it is to be circumspect in proclaiming unproven benefits of new technology. The statement that many diseases "are probably all multigenic" is in no way an indication that the tremendous resources involved in the genome project will yield the useful results implied in the editorial. Our colleagues in physics could wryly argue that diseases are based, ultimately, on particle physics and quantum mechanics and justify spending this congressional windfall on linear accelerators.

Koshland's concluding admonition—that not supporting the project constitutes "immorality of omission—failure to apply a great new technology to aid the poor, the infirm, and the underprivileged"—might sound cynical to health care workers in third