

when fully operational, will approach the versatility represented at the Institut Laue-Langevin in Grenoble, France, with performance at least comparable to that of the best European reactor facilities.

None of this, of course, changes the fact that the United States must proceed to build next-generation neutron sources, and enhance existing sources where possible to meet growing needs. While construction of a new source is primarily the responsibility of DOE, we at NIST will continue to support this effort in the future as we have in the past. We will also continue to provide the best possible neutron facilities for U.S. researchers here at NIST well into the next century.

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Clery and Lawler conclude, "But until the next century, U.S. researchers will have to traipse across the Atlantic to conduct their experiments at the world's cutting-edge neutron-scattering facilities." Neutron scattering is not an end in itself, but merely one technique used to characterize substances. To do cutting-edge neutron-scattering re-

search, one probably has to use a cutting-edge neutron-scattering facility. However, other research fields, such as materials science or biology, that use neutron scattering have other options available for cutting-edge research. The hoped for Advanced Neutron Source (ANS) in the United States was designed for neutron radiation effects research and neutron-induced production of transplutonium elements for research, in addition to neutron-scattering research. Although the design driver in the ANS was neutron-scattering experimentation, design compromises were made to accommodate the other research areas. So comments in the article about the drawbacks of dual-use facilities may have been overstatements, even though there are indeed problems with facilities that have more than one constituency.

Neutrons used in research can sometimes be replaced by probes of other types or other characterization techniques. Although neutrons provide a powerful method with which to obtain measurements of certain characteristics of materials, chemicals, and substances, it is possible to obtain proper characterization using other techniques. There is no doubt that the ANS or another powerful neutron source for the United States would be extremely useful. It appears that a win-

dow of opportunity for such a facility was missed by the previous Congresses, and preparation should be made for the next opportunity. Given the present budgetary situation and other factors, one may have to temporarily focus on improvements to existing facilities, alternative techniques, or advances in instrumentation to increase the effective neutron flux at the sample. If too much emphasis is placed on a neutron-scattering gap rather than on research advances, wrong policies or priorities, such as eliminating other research to accommodate neutron-scattering facilities, may result. The resulting harm would encompass the neutron-scattering research community as well as the remaining research fields.

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AIDS Data

In a set of letters entitled "AIDS-associated Kaposi's sarcoma" (24 Feb., p. 1078), there is one by Michael S. Ascher *et al.* (p. 1080) in which my letter in *Science* of 20 January (p. 313) is discussed. Ascher *et al.* write that "Duesberg misrepresents data from the San

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Francisco Men's Health Study (SFMHS) cited by us." Ascher *et al.* then assert that "there were 27 nonusers of 'poppers' [nitrite inhalants]" among the 215 AIDS patients. However, the 27 nonusers are neither documented in the 1993 paper by Ascher *et al.* (1) they say I misrepresent, nor anywhere else in the literature until now.

Our independent re-investigation (2) of the database of Ascher *et al.* shows that AIDS among the 215 patients reported (1) was "almost completely limited (98%) to respondents who reported using drugs," as only 3 out of the 215 patients reported that they had not used drugs. Moreover, our study (2) revealed 45 human immunodeficiency virus (HIV)-negative men with one or more AIDS-defining conditions.

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1. M. S. Ascher, H. W. Sheppard, W. Winkelstein, E. Vittinghoff, *Nature* **362**, 103 (1993).
2. B. J. Ellison, A. B. Downey, P. H. Duesberg, *Genetics* **95**, 165 (1995).

Response: In our 24 February letter to *Science*, we cited data from our earlier com-

mentary on drug use and AIDS (1). In his letter, Duesberg did not acknowledge that a clearly defined category of light users of "poppers" was made up of 161 persons reporting less than weekly use or no use during the 2 years before their entry into the SFMHS. In our letter, we provided the additional information, not included in the original article, that 27 of the 161 had reported no "popper" use during the designated period.

B. J. Ellison *et al.* have reported that an independent analysis of data from the SFMHS revealed 45 HIV-seronegative AIDS cases (2) in contrast to our study, which found none. Table 1 of Ellison *et al.*'s paper lists these alleged cases according to presenting diagnoses: *Salmonella* (18 cases), a common foodborne pathogen, is not AIDS-defining unless it is recurrent and systemic. With respect to CD4⁺ cell counts of less than 200 per microliter (14 cases), we have previously identified such individuals in the SFMHS (3) and have demonstrated that they are asymptomatic with single low counts in a background of normal CD4⁺ values. Herpes zoster (nine cases) has never been in the AIDS case definition of the Centers for Disease Control and Prevention. Thrush-oral candidiasis (six cases) is a common commensal in

immunocompetent persons; to be AIDS-defining, candidiasis must affect the esophagus, bronchi, or lungs. Immune thrombocytopenic purpura (two cases) and nonpulmonary tuberculosis (one case) likewise occur at low frequency in immunocompetent persons. The alleged cases occurred in 581 HIV-seronegative study subjects observed over a period of 96 months (4648 person years).

The proposed AIDS-drug-use association is a classic example of confounding, that is, a suggestion of a correlation caused by the association of a spurious factor (drug use) with a factor (HIV infection) causally related to the outcome (AIDS). The standard statistical methods that we used to differentiate cause from confounding factors showed, in this case, that HIV was the cause and that the drug-use association was spurious (1).

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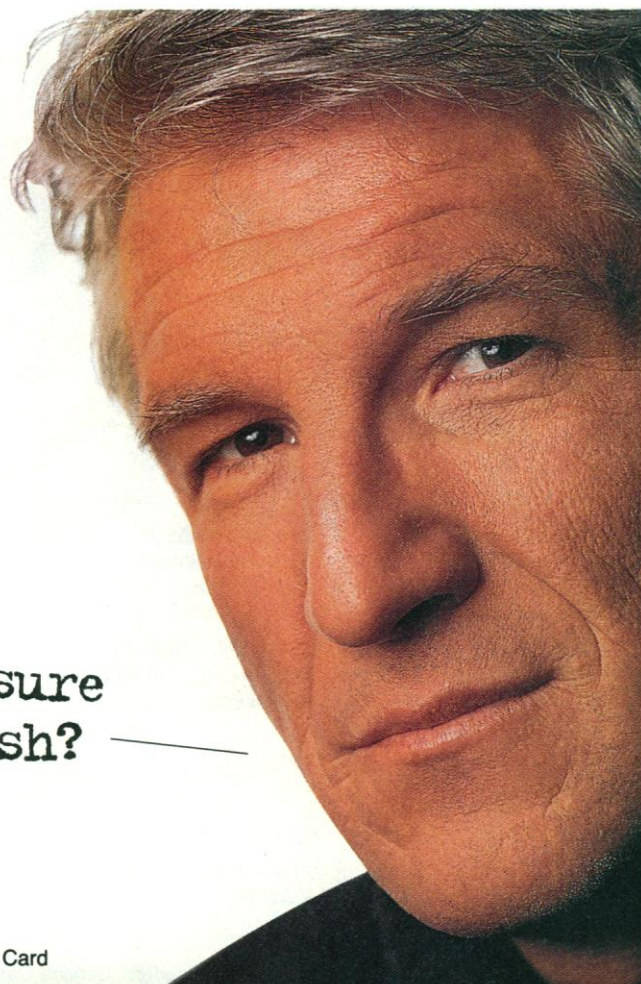
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1. M. S. Ascher, H. W. Sheppard, W. Winkelstein, E. Vittinghoff, *Nature* **362**, 103 (1993).
2. B. J. Ellison, A. B. Downey, P. H. Duesberg, *Genetica* **95**, 165 (1995).
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Cell Cycle Arrest

We were pleased to see the three reports (1-3) and Research News article by Jean Marx (p. 963) in the 17 February issue that highlight the induction of the protein p21(WAF1) cyclin-dependent kinase (Cdk) inhibitor in myogenesis (1) and the high level of expression of p21(WAF1) in terminally differentiated tissues (2). These findings elegantly extend the findings published last fall in our papers "Induction of p21(WAF1/CIP1) during differentiation" (4) and "Induction of differentiation in human promyelocytic HL-60 leukemia cells activates p21, WAF1/CIP1, expression in the absence of p53" (5). We had reported that multiple differentiation inducers caused immediate-early and sustained up-regulation of p21 in many cell types through a p53-independent pathway. The report by Skapek *et al.* (3) demonstrating

p21(WAF1) reversal of a cyclin D1-mediated differentiation block in muscle raises the hope that in some settings p21(WAF1)-inducing agents may be anti-oncogenic. We would caution, however, that this strategy would be ineffective in settings in which p21(WAF1) induction is uncoupled from growth arrest. An example is our demonstration that deregulated c-myc expression is capable of uncoupling p21(WAF1) induction both from growth arrest and from differentiation (4).

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1. O. Halevy *et al.*, *Science* **267**, 1018 (1995).
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3. S. X. Skapek, J. Rhee, D. B. Spicer, A. B. Lassar, *ibid.*, p. 1022.
4. R. A. Steinman *et al.*, *Oncogene* **9**, 3389 (1994).
5. H. Jiang *et al.*, *ibid.*, p. 3397.

"More" Is Not "Different"

I agree with Sheldon Krinsky (Letters, 17 Feb., p. 945) that "[m]odifying an inert chemical structure and modifying an organism are two very different things." Yet, he illogically extends this observation to a comparison of two organisms. Modification of an organism by traditional breeding and by recombinant DNA methods are not very different things. The fact that we can make a greater variety of changes by recombinant DNA is not an inherent reason to place a higher regulatory burden on products of recombinant DNA techniques.

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Sampling Zooplankton: Correction

We have learned that there is an internal inconsistency in the zooplankton dataset used in our report "Climatic warming and the decline of zooplankton in the California Current" (3 Mar., p. 1324) (1). The data

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