LETTERS

Retrovirus Terminology

A human retrovirus, human T-cell leukemia virus (HTLV), was first isolated by Gallo and his colleagues in 1980 from a cell line established from a patient with cutaneous T-cell lymphoma (mycosis fungoides) (*1*). Subsequently, ATLV (adult T-cell leukemia virus) (*2*, *3*) was isolated from the cell line MT-2, established by Miyoshi *et al.* (*4*), from Japanese patients with adult T-cell leukemia-lymphoma (ATL). This disease was discovered by Takatsuki and his colleagues (*5*) as a unique T-cell malignancy clustered in the southwest part of Japan. These two independent viral isolates were shown to be closely associated with ATL by epidemiological and molecular biological studies.

HTLV and ATLV were shown to be similar by immunological cross-reactivities (*6*) and nucleic acid hybridization (*7*). However, the data were not sufficient to prove the identity of these two viral isolates because the immunological cross-reactivities of the core proteins p19 and p24 reflected only part of the *gag* gene of the viral genomes and because the viral complementary DNA preparations were not representative. Recently, we determined (*8*) the total nucleotide sequence of the ATLV genome cloned in λATK-1. On the basis of this structural information, we compared the provirus genomes of HTLV and ATLV integrated in the cell lines HUT-102 and MT-2, respectively, by Southern blotting analysis using five viral gene-specific probes. With every specific probe the expected viral fragments were identical for the HTLV and ATLV proviruses (*9*). These results clearly indicate that the locations of the gene-specific sequences and the cleavage sites of some restriction enzymes are identical in the proviral genomes integrated in HUT-102 and MT-2. Thus, we can conclude that HTLV and ATLV are the same, even if they differ in their base replacements, small insertions, or deletions. This conclusion indicates that the viral populations in the southwest of Japan and in the Caribbean have a common origin.

In view of these results we propose to use the term HTLV rather than ATLV, respecting the first isolate of this retrovirus. We will use the terminology "ATK strain of HTLV ($HTLV_{ATK}$)" for the ATLV previously cloned and reported as λATK-1, and whose total sequence was determined (*8*). At the conference on human T-cell leukemia viruses held at Cold Spring Harbor in September 1983, a letter proposing that the term HTLV be used for the retrovirus was signed by the following: W. A. Blattner, National Cancer Institute, Bethesda; D. Catovsky, Hammersmith Hospital, London; M. Essex, Harvard University School of Public Health; R. C. Gallo, National Cancer Institute, Bethesda; M. Greaves, Imperial Cancer Research Fund, London; Y. E. Ito, Kyoto University; I. Miyoshi, Kochi Medical School; K. Takatsuki, Kumamoto University Medical School; R. A. Weiss, Institute of Cancer Research, London; and M. Yoshida, Cancer Institute, Tokyo.

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The AAAS and Human Rights

We write to support the position of the AAAS Committee on Scientific Freedom and Responsibility (Letters, 7 Oct., p. 6) and to endorse Lee Frank's statement that "any systematic violation of human rights and repression of free expression is deserving of every public forum the free world offers" (Letters, 12 Aug., p. 604).

Some are concerned that expression of support for another human being who has been mistreated or tortured for his or her political views would be interpreted as political statements or political action (Letters, 15 July, p. 216). Even if that were so in some cases, we believe there are clear ethical and humane reasons which are paramount. Although not always honored, the basic principles recognized internationally are stated in the Universal Declaration of Human Rights of the U.N. General Assembly of 10 December 1948 and the Declaration on the Protection of All Persons from Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment,

adopted by the U.N. General Assembly on 9 December 1975. These principles are a solid basis for providing support for all human beings who are mistreated.

Amnesty International is the paradigm of an organization which assiduously avoids any political stance other than a support for basic human rights in all circumstances. Let us not hold back; let us take a stand on these principles.

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Computer Testing

In his timely editorial on computerized psychological testing (22 July, p. 323), Joseph Matarazzo criticizes automated test interpretations. However, readers might be left with the impression that he is criticizing any use of computers in giving psychological tests.

Matarazzo writes that a computer-presented test has "a spurious appearance of objectivity and infallibility," as a halo effect from the computer. In fact, the appearance of infallibility is closely related to the appearance of precision of numerical test scores, a problem that predates the computer. Matarazzo expresses concern that results of computerized psychological tests can be harmful in the hands of an unqualified person, such as a college admissions officer, but surely this would not apply to computerized cognitive tests of knowledge, such as the Graduate Record Examination or the Scholastic Aptitude Test.

A paper-and-pencil test does not lose its power when it migrates to a computer. A vocabulary test measures word knowledge just as well on a computer as in a booklet. Further, computer presentation has many benefits. For example, in tests of knowledge and cognitive skills, the computer can adapt the level of difficulty of the question to the apparent level of knowledge of the student. The computer also permits new types of tests; memory and response speed are but two of the skills more easily assessed by computer than by test booklets.

Matarazzo does not object to presenting personality tests on a computer console rather than in a booklet, or to using the computer to process the responses and provide the customary profile of test scores for inventories such as the Minnesota Multiphasic Personality Inventory (MMPI). Scores from the paper-and-pencil version of the MMPI have demonstrated validity for many purposes, and the *scores* from the computer version may be presumed to have similar validity.

Narrative interpretations of test scores are another matter. The basis for these interpretations is shrouded in proprietary secrecy and, as Matarazzo states, no evidence has been published in peer-reviewed journals of the validity of any such interpretations. Establishing their validity will not be easy because appropriate methods are not well developed.

Although there is no cause for alarm about computerized testing, much more remains to be learned about automated test interpretations, and here I join Matarazzo in urging caution. Eventually, these interpretations might turn out to be better than those given by the average clinician, but in any case they will be based only on the test responses and must be considered only partially digested information for use by qualified professionals.

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Grain Elevator Safety

As noted in Eliot Marshall's article "Deadlock over explosive dust" (News and Comment, 4 Nov., p. 485), I am counsel for the National Grain and Feed Association in connection with pending proposals of the Occupational Safety and Health Administration (OSHA) to regulate grain-handling facilities.

Marshall asserts that the Office of Management and Budget, "[w]ith advice from" me, has held up the OSHA proposal for extended review. As I informed Marshall, my client and I met on one occasion with officials at the Office of Management and Budget (OMB) and provided them with the same information previously made available to both OSHA and congressional committees. The implication that I could (even assuming I wished to do so) dictate policy