Editorial & Letters

EDITORIAL

Bioethics and Local Circumstances

The ethics of the design of clinical trials to prevent transmission of HIV-1 from mother to child in developing countries have been criticized.* However, a discussion of ethical principles in biomedical research that ignores the socioeconomic heterogeneity of society is not ethical and not worth holding. Policies regarding health management differ within and between industrialized and developing countries because of their different economic capabilities. Whereas it is established policy that all HIV-positive pregnant women in the United States and other developed countries are offered azidothymidine (AZT), this is not achievable in many developing countries because the costs of the drug and logistical support are prohibitive. For example, Uganda (with 156,600 pregnancies per year) spends $6 annually in health care per person.

In the ACTG 076 trial of AZT's ability to prevent maternal transmission of HIV—frequently used as the "gold standard" against which other trials are measured—AZT treatment was started in a hospital setting between 14 and 34 weeks of gestation and continued (through delivery) until the newborn infant was 6 weeks of age. Yet in Uganda, fewer than 10% of all pregnant women have prenatal care for the first time during the first trimester, 30% during the second trimester, and 60% during the third trimester; only 40% deliver in a health facility.† So to conduct research in Uganda based on such a regimen would produce results applicable only in a research setting.

The future of clinical trials in Africa could depend on two factors. First, sponsoring agencies might slow down or stop the trials because of the ongoing debate about how best to conduct them. This would leave Africa in a terrible position because resources are not available there to do the trials. For maternal transmission studies, the results of testing alternative treatment regimens could lower the cost of therapy dramatically, to a point where it would be feasible for the governments to subsidize treatment. Evaluation of HIV vaccines is essential for Africa because the resources required for highly active antiretroviral treatment (HAART) are not available and other preventive interventions have their own limitations.‡ The second factor is the extent to which the people in developing countries will be influenced by the debate. Discussions that ignore the magnitude of the problem, gloss over the socioeconomic circumstances of poor nations, and apply previously developed ethical guidelines too literally may lead individuals to reduce their participation in future trials. So far, policy-makers and politicians have not interfered with ongoing trials because of the current debate.

Following the atrocities committed by Nazi research physicians, ethical guidelines to protect research subjects were laid down in the Nuremberg Code, the Declaration of Helsinki, and the "International Ethical Guidelines for Biomedical Research Involving Human Subjects" (issued in 1982 and revised in 1993).§ The 1993 guidelines were designed to be of use, particularly to developing countries, in defining national policies on the ethics of biomedical research, applying ethical standards in local circumstances, and establishing or redefining adequate mechanisms for ethical review of research involving humans. In their present form these guidelines will delay development of badly needed vaccines and treatment regimens. For example, they state that phase I drug studies and phase I and II vaccine studies should only be conducted in "developed communities of the country of the sponsor." Likewise, the guidelines say that phase III vaccine trials and phase II and III drug trials should be conducted simultaneously in the host and sponsoring countries. Barry R. Bloom discusses other ethical issues in this issue.|| Regional meetings are being convened in Africa, Asia, Latin America, North America, and Europe early in the year to address the obstacles posed by the guidelines in their current form. Resulting improvements are expected to make the guidelines more specific so that there will be no roadblocks in the way of conducting ethical clinical trials.

Edward Mbidde

*M. Angell, *N. Engl. J. Med.* **337** (no. 12), 847 (1997); P. Lurie and S.M. Wolfe, *ibid.*, p. 853. †F. X. Miiro, personal communication. ‡E. K. Mbidde, *J. Intl. Assoc. Physicians AIDS Care* **3** (no. 11), 26 (1997). §CIOMS in collaboration with WHO, *International Ethical Guidelines for Biomedical Research Involving Human Subjects* (CIOMS, Geneva, Switzerland, 1982; revised in 1993). ||B. R. Bloom, *Science* **278**, 186 (1998).

The author is director of the Uganda Cancer Institute at Makerere University in Uganda, Africa.

LETTERS

Frontiers and reforms

The European Molecular Biology Laboratory is said to have performed excellently despite budgetary constraints (right, EMBL's Heidelberg headquarters). "Gene manipulation" is said to be a "profound cultural issue" for the Swiss. Reform of the U.S. Food and Drug Administration is evaluated. Acupuncture is said to be "virtually useless." And is there "reason for optimism" that therapeutic drugs for treating addiction will be used?


EMBL

EMBL's Outward Expansion

The News & Comment article "EMBL's outward expansion strains its core facility" by Nigel Williams (12 Dec., p. 1875) is thorough, but incorrectly implies that the headquarters of the European Molecular Biology Laboratory (EMBL) in Heidelberg, Germany, has been squeezed financially in favor of the outstations. The financial pressures that exist are felt both in the outstations and in Heidelberg (and also in national laboratories). The difficulty is that the budgetary growth that the member countries have been able to offer in this decade has not been commensurate with the agreed increase in EMBL activities, or with the growth of opportunities in the life sciences, pure and applied.

It is hoped that the increasing emphasis on biotechnology in Europe will highlight the importance and needs of this outstanding European center of research and advanced training. The EMBL council appreciates the excellent performance of the laboratory's scientists even under tight budgets and has full confidence in Director-General Fotis Kafatos and the priorities he has set, in which the Heidelberg laboratory ranks high.

Williams also states that the EMBL's governing council, made up of representatives of the governments of each member state, must make all decisions unanimously, making it easy for any government to stifle budget increases. Despite the fact that the scientific program and financial framework in which the EMBL has to work must be approved unanimously, nearly all other decisions require majority rule only.