Causes of death in haemophilia

SIR — Darby *et al.*¹ convincingly demonstrate the impact of HIV infection on mortality among haemophiliacs. Their study raises another important issue, the high mortality rate from bleeding and liver disease among people with haemophilia, both HIV-infected and un-

tors to mortality in our cohort. It is interesting that very similar data were obtained two decades earlier, before the AIDS era.

These studies show why we were then so concerned with bleeding in our patients, and why we should be just as concerned with bleeding in haemophiliacs

Study:	CAUSES OF DEATH					
	HIV+		HIV-			
Total no. of deaths by HIV status	Darby ¹ 403	MHCS ² 389	Darby 84	MHS 22	Aledort ³ 206	Forbes ⁴ 62
Year of study	1995	1995	1995	1995	1977	1977
Cause of death*						
AIDS** ± other	235(58.3)	280(71.9)	—	—	—	—
Bleeding	73(18.1)	27(6.9)	38(45.2)	7(31.8)	85(41.2)	19(30.6)
Liver disease	11(2.7)	30(7.7)	8(9.5)	3(13.6)	9(4.3)	5(8.0)

* Number of (per cent) of HIV (+) or (−) deaths

** AIDS indicates opportunistic diseases that meet the 1987 surveillance definition of the US Centers for Disease Control and Prevention

infected. They showed a 307-fold and 1,156-fold increase in bleeding deaths for HIV-infected and -uninfected subjects, respectively, when compared to the general population. Similarly, deaths from liver disease were increased 37-fold in the HIV-infected subjects and 16-fold in the uninfected subjects.

We analysed data on mortality from the Multicenter Hemophilia Cohort Study (MHCS) to determine if bleeding and liver disease were also frequent causes of death for our patients. Our cohort is well described², and includes subjects from haemophilia treatment centres in the United States, Greece, Germany, Austria, Switzerland and France. Mortality data are collected at the time of death, rather than from death certificates, and in our study multiple causes of death can be listed for each decedent. For this analysis, death from bleeding included subjects who died from only bleeding without other causes of death listed. Deaths from liver disease included some patients dying of liver disease and other illnesses, but not AIDS-associated opportunistic diseases. Data were also obtained from two early studies of haemophiliac mortality, one from US and European centres³, and another from haemophilia treatment centres in the United Kingdom⁴.

As the table shows, our current data confirm the findings of Darby *et al.* Bleeding and liver disease are major contribu-

now. Clotting factor concentrates and blood products must be used more effectively to treat and prevent the bleeding that continues to threaten the survival of these individuals.

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Nicotine as a drug

SIR — I am writing in response to your leading article "Nicotine as a drug" (*Nature* 376, 539; 1995). Most governments are in a dilemma about the contentious issue of saving people from tobacco addiction and related afflictions. The enormous revenue and the employment potential in tobacco cultivation, processing and marketing acts as a temptation not to ban tobacco use. Most governments do not go beyond insisting on a statutory warning about the health hazard on cigarette packets (often printed illegibly). The knowledge that tobacco generates jobs for doctors and other health-care workers is not recent.

In India, tobacco smoking is primarily a

male vice. One of the strategies used in advertisements aimed at young males encouraging tobacco addiction is projecting tobacco (cigarette) smoking as manly, and something that women like. Women should make explicit their dislike for the use tobacco. Advertisements to this effect in all media would be very helpful. This is true also in other countries where tobacco smoking is largely restricted to men. Feminist organizations must help to create a 'smokeless world', with the same zeal as they fight for equality in rights and status.

It is also necessary to find better uses for the land traditionally used for tobacco cultivation. In India at least, strawberry and sugar-cane cultivation would offer effective alternatives with the same employment potential.

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Tonegawa defended

SIR — As members of Dr Susumu Tonegawa's laboratory, we should like to comment on the news report "Nuclear regulators to investigate 'contamination' incident at MIT" (*Nature* 377, 563; 1995). The report contains inappropriate speculation and factual errors, exemplified by the incorrect account of the work for which Tonegawa was awarded the Nobel prize.

We are greatly disturbed by the prejudicial tone of the report. In its context, the statement that Tonegawa is reputed to bring "an intensively competitive approach to his laboratory" implies that he fosters competition within his group and is therefore indirectly culpable for the unfortunate incident that has occurred. We should like to state emphatically that Dr Tonegawa does not encourage competition within his group.

**A. Abelson, C. Chen, D.F. Chen,
J. Delaney, D. Gerber, L. Graziadei,
M. Hasan, H. Hinds, A.A. Hsu, J. Huang,
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■ The error about Dr Tonegawa's Nobel prize was introduced in the editing — Editor, *Nature*. □

1. Darby, S. C. *et al.* *Nature* 377, 79–82 (1995).
2. Ehmann, W. C. *et al.* *J. Acq. Immune Def. Syndromes* 7, 1095–1098 (1994).
3. Aledort, L. M. in *Unsolved Therapeutic Problems in Hemophilia* US Department of Health, Education and Welfare, DHEW publication No. (NIH) 77-1089, 9–14, 1977.
4. Forbes, C. D. & Prentice C. R. M. in *Unsolved Therapeutic Problems in Hemophilia* US Department of Health, Education and Welfare, DHEW Publication No. (NIH) 77-1089, 15–22 (1977).