

number of genetic markers associated with disease increases, it is likely to become apparent that few of us are free from mutant genes that predispose or contribute to diseases of one sort or another. Who then will form the pool of risk-free, insurable persons? The strategy you propose would provide time to develop a constructive and humane response that can ensure access to appropriate care and security for all.

**Paul Berg**

Stanford University School of  
Medicine & Beckman Center for  
Molecular and Genetic Medicine,  
Stanford, California 94305, USA

**Maxine F. Singer**

(President)

Carnegie Institution of Washington,  
1530 P Street NW,  
Washington, DC 20005, USA

SIR — Your Briefing failed to point out some of the underlying economic factors that do and will continue to influence why and how genetic tests are used. It also stops short of addressing the fundamental problems caused by the varied and mixed policies governments have adopted regarding genetic tests and insurance.

The benefits of these tests in insurance markets go not to the insurance companies but rather to the consumers of insurance with negative test outcomes and thus lower risk. In a competitive marketplace — and the insurance market is certainly that — these consumers will pay less for their medical and life insurance. Those who test positive will pay more. The insurance companies will ultimately be no better or worse off than they are now. The only difference is that they will get lower revenues from one group and higher revenues from another. Their profits should stay close to what they are now.

The real problem for the companies is in not having access to the same information as other companies or not being able to use it when others can. If insurers in one country can gather and use genetic information, they will create two policies where formerly there was one; one for those who test positive and one for those who test negative. The price to the latter will be less than they paid for the single policy offered before. These lower prices will attract the lower risk customers from countries not allowing the insurers the use of the information. Similarly, the prices of policies of those testing positive will rise and those individuals will seek insurance companies in countries that do not allow the use of genetic information. Companies unable to use the testing information will lose market share and be forced to raise their prices.

If this market switching were to continue, we would ultimately end up with only one insurance policy in each country; one for those who test positive in the country with no access to testing information and one for those who test negative in the coun-

try that allows the use of the information. The prices will be the same as they would be if both countries allowed the use of information and sold the two policies in their own countries.

Clearly, the use of testing information will benefit those with lower risks. Competition will provide them with lower prices. The poor people in that group will have a good argument for demanding they should not have to subsidize those with high risks. The group with positive tests will of course pay higher prices. What is important is that this will happen even if in some jurisdictions companies are allowed to use the information and in others not. The difference is that, in the latter case, large interim costs will be borne by both consumers and insurers as movement across the markets takes place. Unless a uniform policy is devised, we may well see this scenario tested. One could not design a better testing ground than a European Commission with free trade in insurance and mixed policies regarding the use of genetic testing.

**Peter H. Nickerson**

Department of Economics and Finance,  
Seattle University,  
Seattle, Washington 98101, USA

## Science in India

SIR — John Maddox's leading article on "The prevalent distrust of science" (*Nature* 378, 435–437; 1995) and the correspondence that has followed (*Nature* 379, 292; 1996) make interesting reading here in India. Certainly, the funding patterns for research and teaching the world over seem to indicate anything but distrust for science. Moreover, in India, as in most postcolonial societies, science has consistently been projected by the state as the solution to all of society's ills: witness Jawaharlal Nehru's exhortation to his people to develop a "scientific temper".

But the institutionalization of science, which makes possible such 'icons' of development as hydroelectric dams, rockets and computers also ensures a widespread awareness that being a scientist is "just another job". And for most Indian scientists, the practice of science is largely a vocation that involves the learning, practice and teaching of certain techniques that bear little relevance to the conduct of politics, or, for example, to the marriage of one's daughter. In these matters, other 'unscientific' considerations often apply.

These compartmentalizations attenuate science's claims to social transformation, and lead to (a quite proper) distrust of those who speak on its behalf. This is quite separate from the distrust arising from "science in the service of death and destruction" that Stephen Keast mentions (*Nature* 379, 292; 1996).

This limited effectiveness is not a feature of the practice of science alone. The fact

that history and philosophy as disciplines are similarly institutionally 'contained' leads one to speculate that the relativization of knowledge systems is one strategy by which India 'manages' the potential for disruptive change; that such "distrust" is an important component of India's response to all-embracing systems.

**A. Girdhar Rao**

Information Management  
and Exchange Program,  
International Crops Research  
Institute for the Semi-Arid Tropics,  
Patancheru 502 324, AP, India

## The last word?

SIR — There is a need for a word in taxonomy, and in medical genealogical, scientific, biological and other literature, that does not occur in the English or any other language. We need a word to designate the last person, animal or other species in his/her/its lineage.

An orphan is someone, usually a child, with no living parents. A foundling is someone, usually an abandoned baby, with no known parents. We do not have one word to describe the last person surviving or deceased in a family line, or the last survivor of a species.

Correspondence with etymologists and publishers of dictionaries to find a single word for 'the last of the line' in any language have been fruitless, with no word known.

A patient recently said: "I am the last of my line". His one word suggestion for his state was "omega", but several people known to us are named Omega and there are too many uses of this word for other purposes.

'Endling' was suggested when we were playing with possible new words. People active in the geriatric field thought it suitable too. Other suggestions were: lastoline (contraction for last of the line), yatim (Arabic for orphan or unique of its kind), Ender (one who ends or finishes), endmost (nearest to the end), endler (also a new word but *-ler* is not a recognized suffix).

Etymologists will recognize the two components for the derivation of 'endling' *end-* has several meanings, including 'extinction' and 'finish, concluding part'; *-ling* is a suffix added to denote 'connected with the primary noun' but also includes line and lineage.

We therefore propose that 'endling' be adopted to designate a person or one of a species that is the last of a lineage in his/her/its line. We are already using it when appropriate.

**Robert M. Webster**

**Bruce Erickson**

Christian City Convalescent Center,  
7300 Lester Road,  
Union City,  
Georgia 30291, USA