Genetic testing and insurance

SIR — Now that the US Senate and House of Representatives have denied the US health-insurance industry the right to use human genetic information to disqualify applicants[1], this rule needs to be applied worldwide. Nickerson[2] has already called for a uniform policy in relation to testing; otherwise, as he points out, a two-tier health-insurance system could well develop internationally. This could siphon off those who are 'normal' on the basis of the genetic tests applied, leaving the untested remainder to pay higher premiums.

The Helsinki Declaration, as revised at the 29th World Medical Assembly in Tokyo in 1975, states in Section iii 4 that "[i]n research on man, the interest of science and society should never take precedence over considerations related to the well-being of the subject"[3]. It is precisely these considerations of the well-being of the subject that would be placed at risk, in the name of society, were genetic testing on medical grounds to result in disclosure to insurance companies. Disclosure would lead, as has often been pointed out, in many cases to changes in a patient's well-being, such as his or her insurance rating, or uninsurability, employability, and the peace of mind of the patient and other family members. Even if a patient chooses not to know the results of a test, these would be revealed by the size of premiums or lack of insurance. Moreover, with respect to testing, "the benefits of their participation might not be realised by them or their offspring, but might help future generations"[4].

To add the penalties outlined above for genetic discoveries arising from tests would be detrimental not only to a patient's well-being but also to his or her perception of testing. It could be argued that to reveal the results of genetic tests to insurers might allow one sector of society (the insurance industry) to draw financial benefits against the best interests not only of the individual patient but also of research and society in general. Many factors, for example, deter women from being tested for the breast cancer gene *BRCA1*. Geller *et al.*[5] warn that interest in testing is distinct from participation in testing; and they stress the need for sensitivity in relation to the general distrust of health services by certain sections of the population, and the 'slippery slope' from the perceived social responsibility to be tested to advance medical science to coercion. Also, in some cases, there might be coercion to be tested for a patient to stand a chance of health insurance, if disclosure was not ruled out. It is important, therefore, that members of the medical profession should retain, and be known to retain, complete confidentiality with regard to genetic test results. It is also important that they alone carry out genetic testing in order that the well-being of their patients may be protected.

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1. *Nature* **381**, 10 (1996).
2. Nickerson, P. H. *Nature* **380**, 386 (1996).
3. Declaration of Helsinki — 1964 and 1975 URL: http://ccme-mac4.bsd.uchicago.edu/CCMEPolicies/MedCodes/helsinki
4. Parker, L. S. *Trends Genet.* **11**, 521–523 (1995).
5. Geller, G. *et al. Nature Genet.* **11**, 364 (1995).

Climate debate

SIR — It is regrettable that you urge "political support for abatement strategies" before a scientific controversy is settled[1].

Although you are dismissive of those who are critical of the Intergovernmental Panel on Climate Change (IPCC), your leading article nevertheless makes three things quite clear.

(1) A crucial chapter of the IPCC's report was altered between the time of its formal acceptance and its printing.

(2) Whether in accordance with IPCC rules or not — still a hotly debated matter — "there is some evidence that the revision process did result in a subtle shift ... that ... tended to favour arguments that aligned with the report's broad conclusions". (Critics of the IPCC would have used much stronger words.) The leading article further admits that phrases that might have been (mis)interpreted as undermining these conclusions "disappeared" in the revision process.

(3) Unnamed "IPCC officials" now claim that the reason for the revisions to the chapter was "to ensure that it conformed to a 'policymakers' summary' of the full report...". Their claim begs the obvious question: should not a summary conform to the underlying scientific report rather than vice versa?

The IPCC summary has many problems of selective presentation of facts[2], not the least of which is that it totally ignores global temperature data gathered by weather satellites, which contradict the results of models used to predict a substantial future warming. It seems to me that IPCC officials, having failed to validate the current climate models, are now desperately grasping at straws to buttress the (rather weak) conclusion that "the balance of evidence suggests a discernible human influence on global climate". In this crusade to provide a scientific cover for political action at the Global Climate Treaty negotiations in July in Geneva, they (mis)used the work of respected scientists who never made such extravagant claims[3,4].

The scientific response to these recently published papers has not yet appeared. Indeed, some papers quoted in support of the IPCC conclusion had only been submitted for publication and were still in preprint form when the IPCC report was written.

The leading article correctly observes that "the integrity of the reviewing and approval process is ... an essential element in assuring the credibility of the resulting conclusions". We should not be pushed into adopting hasty policies before journals such as *Nature* print the scientific responses.

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2. Singer, S. F. *Science* **271**, 581 (1996).
3. Mitchell, J. F. B. *et al. Nature* **341**, 132–134 (1995).
4. Santer, B. D. *et al. Clim. Dyn.* **2**, 79–100 (1995).

Not Mussolini but Volterra

SIR — Alison Abbott credits Benito Mussolini (*Nature* **381**, 720; 1996) with establishing Italy's National Research Council (CNR) after the First World War. Mussolini was prime minister at the time, but the driving force was the distinguished Italian statesman of science and mathematician Vito Volterra. When Mussolini became Italy's dictator in 1925, all state institutions, including the CNR, became fascist bureaucracies.

There is no telling what the CNR might have become if Volterra, an ardent anti-fascist, had been allowed to develop it. The custom of filling university positions through national competitions is embedded in the formation of modern Italy. Luigi Berlinguer has his work cut out.

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Dropping bricks

SIR — Once again I write to you to ask you to be a little more careful with your Greek. In the review of *Tectonics* by Moore and Twiss (*Nature* **381**, 570; 1996), the reviewer says that "the ancient Greek τεχτονικη means art of building". This is not so. He has confused two things: τεκτονικη, which does indeed mean the art of building, is spelt with a *kappa* and is the root of the word 'tectonics', and τεχνικη, which means skilful or workmanlike, is spelt with a *chi* and is related to the root of words such as technology (and others also spelt with a ch for *chi* rather than a c for *kappa*).

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