nature

www.nature.com/nature

Vol 460 | Issue no. 7258 | 20 August 2009

Common consent

The distribution of human cell lines used in research should not be hindered by restrictions from donors.

Scientists rightly expect to have access to the materials described in a published research paper, so that they can verify the results and build on the findings. But, as the Corrigendum on page 1044 of this issue shows, the act of research and the ethics relating to a field of study are not always in synchrony, which can introduce unfortunate — and unacceptable — restrictions.

The Corrigendum relates to a paper that describes making pluripotent germline stem cells from human testicular tissue (S. Conrad *et al. Nature* **456,** 344–349; 2008). As with all materials or data reported in a Nature research paper, these cells must be shared with the research community on publication. However, as the Corrigendum details, none of the pluripotent cell lines is currently available because of restrictions in the donors' consent forms, which limit distribution and promise that the cells will be destroyed after a certain time in culture. The authors have since contacted the donors and received permission to develop a few of the lines for distribution. They are also making new lines for distribution from other donors.

Such failures to distribute cell lines are incompatible with Nature journal policies and with the efficient progression of scientific knowledge. The Corrigendum alerts investigators to this situation and the steps being taken to rectify it. This particular case illustrates how, even when clinicians, researchers and their local ethics board follow internal procedures that promote both donor safety and medical research, serious problems can arise.

The community was not that surprised by this situation — six of seven researchers contacted by *Nature* thought this could happen again. Researchers developing cell lines must investigate the restrictions associated with the human tissue they are using, particularly if someone else collected the samples, if the samples come from multiple clinical sources or if they come from several legal jurisdictions. If a scientist needs to create cell lines that might be used for as-yet-unforeseen purposes, only tissue with no restrictions should be used. An article published earlier this year helpfully suggests that scientists obtaining human tissue could alleviate most of the issues from the start by mentioning in the consent form some common procedures (such as sharing cell lines with other investigators), and by including a request to contact donors again if their research takes unanticipated directions (K. Aalto-Setälä *et al. PLoS Biol.* **7,** e1000042; 2009).

Journals can remind authors in their policy guidelines that authors of submissions that involve consent forms must make editors aware of any limits that result from those forms. The Nature journals will be revising their policies to make this clearer.

Most importantly, patients, researchers, clinicians, and review and ethics boards worldwide need to agree on conventions that are acceptable to most parties under most circumstances. Internationally standardized consent forms for the donation of human tissue should cover new uses, genomic comparisons, patents and product development, and should discourage limiting access or lifespan.

Ethics and review boards are set up to protect individuals, but can also go much further to promote research. No one can deny that donors need to understand the risks and benefits of a procedure, trial or donation. However, it seems most ethically responsible, given the value of research, for the boards to explain the consequences that restricted access and time limits can have on the value of a donor's tissue. ■

A question of control

Scientists must address the ethics of using neuroactive compounds to quash domestic crises.

A number of countries are investigating the use of neuroactive compounds as a nonlethal way to deal with riots and other domestic crises. The idea is to stun people temporarily, or otherwise change their behaviour, to help the authorities exert control (see page 950).

Russian special forces put that idea into practice in October 2002, when they sprayed a mixture of incapacitating agents into a Moscow theatre in an effort to free some 700 theatre-goers held captive by Chechen rebels. The exact nature of the mixture remains secret; Russian authorities disclosed only that it included a component similar to the opiate fentanyl. But it obviously had a narrow therapeutic window: about 130 hostages died as a result of inhaling the gas.

This episode underscores the ethical conundrum — would the rebels have killed all the hostages? — that makes an outright ban on the military use of incapacitating agents politically unrealistic. Instead, an acrimonious argument over the control of nonlethal weapons is now under way among the states that have signed the Chemical Weapons Convention — which does not cover nonlethal uses for domestic riot control and the like — as well as the Biological and Toxin Weapons Convention, which states that biological agents may be used only for "prophylactic, protective or other peaceful purposes". Unfortunately, the various sides cannot even agree on how to define the exclusions in the treaties.

During this impasse, the wider community of life scientists should actively discuss the effectiveness and safety of potential incapacitating agents. In particular, academics and non-governmental organizations involved in the debate should agree a list of compounds likely to be considered for use by military agencies, and publish it on the Internet. Scientists could then submit comments to aid its annotation.

Just listing potential agents does not necessarily imply an endorsement of their use. But by providing an accessible forum where scientists can directly engage on the issue of nonlethal weapons, it could help inform the political debate — and might prevent disasters of the sort seen in Moscow. ■