nature

Where next on anti-proliferation?

The successful conclusion of last week's review conference of the NPT, and the indefinite prolongation of the treaty, should not blind us to the need for action before complacency overtakes us.

IF China had not carried out an underground nuclear explosion at the beginning of this week, it would have been entirely reasonable to be throwing hats in the air to celebrate last week's successful conclusion of the review conference of the Non-Proliferation Treaty (NPT). Against expectation, the conference agreed to an indefinite extension of the treaty. There will still be review conferences every five years, but none of those will be an occasion when the treaty will collapse automatically unless there is an affirmative vote in favour of continuation. This is good news in the sense that we shall all now be able to sleep more easily at night. But we probably shall. China's explosion should remind us how unwise that would be.

Last week's meeting in no sense implies that non-proliferation has now been signed and sealed. Recent experience, with North Korea and Iraq, for example, is a vivid reminder that governments' nuclear inclinations are not easily predicted and can seem to pop out of nowhere. Those black sheep will not be the last in the rest of time. Moreover, there remain the threats to peace of mind, and possibly to peace, presented by Israel, India and Pakistan, all of which have deliberately advertised nuclear inclinations and which may also be nuclear powers on some undetermined scale. Those problems will not melt away of their own accord.

Where to start? The answer is with China, which has let it be known during the past month's negotiations in New York that it would not rock the boat on proliferation if three conditions were satisfied: a comprehensive test-ban comprehensively adhered to, a declaration by nuclear powers that they would not attack non-nuclear powers with nuclear weapons and a declaration by nuclear powers that they would never be the first to use nuclear weapons in a conflict. The first condition makes sense because it is believable. The other two do not, because they are predicated on trust between potential adversaries.

Luckily, there are constructive steps that can be taken. Signing and then ratifying a comprehensive test-ban treaty within a year or so should be a first objective. Persuading China that there are other and more reliable ways of preventing nuclear attacks than public declarations that there will be none should be the second. A verifiable cut-off of the production of missile material for military purposes would powerfully inhibit the stockpiling of nuclear weapons and, ultimately, would restrain the capacity of existing nuclear powers to threaten smaller fry with destruction. For, in a more open international community, public knowledge of who has what will be an effective modulator of what now seems increasingly old-fashioned power politics.

It will be a great misfortune if, otherwise, the years ahead are destined to be like the past twenty-five. Inspectors repeatedly trudging off to look at strange reactors, and occasionally suspecting that something is amiss, will not put the fear of proliferation to rest. Nor will declarations of no first-use. The best hope is that the nuclear powers will wake up to the truth that greater restraint on their part, agreed upon collectively, is the only way of damping down the ambitions of now non-nuclear states. Last week's successful ending should not send us all to sleep. \Box

AIDS pathology unknown

HIV infection provokes hyperactivity of the immune system, but the causes of that are far from understood.

THE clutch of contributions to Scientific Correspondence (page 193) this week deserves a reading, both for its inherent interest and for what it says about the present state of AIDS research. It will be recalled this journal published in January an account of research that showed that the infection of a person by the virus HIV ordinarily evokes not the previously suspected quiescence of the immune system, but a rapid turnover both of the vulnerable lymphocytes and of the virus itself. The then-general opinion that the first reaction of the human body to infection by HIV is a kind of indifference was dramatically and directly challenged. Nothing that has since come to light denies the challenge. But it has also become plain that too little is yet known of the dynamics of the immune system. That is a gap to fill.

The second arresting feature of this correspondence is the letter from Dr Peter Duesberg and his colleague, Dr Harvey Bialy, which has been published without change. Sadly, there seems no way in which the authors concerned can be persuaded that "free and fair scientific debate" is ordinarily understood to mean a progressive process, one in which each of two sides learns from what the other says. A restatement of earlier and well-known positions is not that at all. On this occasion, Duesberg and Bialy's citation of Loveday in their cause is especially inappropriate, given Loveday's name among the authors of a letter supporting Wei *et al.* and Ho *et al.* But no further solicitation of Duesberg's opinion is called for.