

ICSU seeks to classify 'traditional knowledge'

London

The International Council for Science (ICSU), which brings together the main professional bodies representing individual scientific disciplines, has been asked to carry out a study of the concept of 'traditional knowledge'.

Some members are concerned that a commitment to promote such knowledge, endorsed by participants to the World Conference on Science in Budapest in June, could be used to support the argument for a range of 'anti-science' ideas, ranging from astrology to creationism.

The endorsement of traditional knowledge comes in two documents approved at the end of the Budapest conference, which was organized jointly by ICSU and the United Nations Educational, Scientific and Cultural Organization (Unesco).

A paragraph in the first document, *Declaration on Science*, describes traditional and local knowledge systems as "dynamic expressions of perceiving and understanding the world [that] can make, and historically have made, a valuable contribution to science and technology". The second document, *Science Agenda*, calls on governments to "formulate national policies that allow a wider use of the applications of traditional forms of learning and knowledge". (See <http://helix.nature.com/wcs> for copies of



Roots of knowledge? A medicine man plies his trade at a market in Malawi.

both documents.) The inclusion of these statements followed pressure from several countries — India in particular — that greater recognition should be given to, for example, the potential medical value of traditional herbal treatments (see *Nature* 397, 376; 1999).

It reflects feeling in many such countries that the importance of this knowledge is being undermined by the teaching of Western

science and that, where this knowledge turns out to have commercial value, those who developed it are not being compensated.

But when the two documents were discussed in Cairo two weeks ago by the general assembly of ICSU, there was also concern that 'traditional knowledge' was insufficiently defined.

"This arose because of the difficulty of interpreting this phrase, and a feeling that part of the debate over such knowledge is directly linked to various 'anti-science' lobbies," says Brian Heap, foreign secretary of Britain's Royal Society. "We felt that there was a need for clarification."

Representatives of the International Astronomical Union are said to have emphasized the need to distinguish between astronomy and astrology. US participants expressed similar concern that the documents might be used to support creationist ideas.

Heap and others acknowledge that there are areas where 'folk remedies' have a sound scientific basis. Indeed, he points out that academies in India and China support study of the links between traditional knowledge and modern science.

The assembly's endorsement of the documents expressed reservations about the passages referring to traditional knowledge. It has asked the executive board of ICSU "to set up a critical study of this issue". **David Dickson**

UK government not convinced by claims for flu drug

London

The UK government agreed last week that physicians should be discouraged from prescribing a novel anti-viral drug, Relenza, on the grounds that it is not convinced of the drug's cost-effectiveness.

The government's announcement endorsed advice to physicians from the newly created National Institute of Clinical Excellence (NICE), set up to provide guidance on whether new therapies should be introduced into the health service.

But Glaxo Wellcome — maker of Relenza — and two other leading pharmaceutical companies want the government to reverse its decision and overrule NICE. They argue that the need to obtain the institute's approval is anti-innovative and an unjustifiable additional hurdle for new drugs to overcome.

Relenza prevents the spread of the virus to uninfected cells in the respiratory tract. It is the first in a class of compounds known as neuraminidase inhibitors, and the first anti-viral drug to be effective against all known strains of influenza A and B.

For influenza to spread, new virus particles must break out from infected cells. The enzyme neuraminidase breaks the bond holding the virus to the infected cell. Relenza inhibits neuraminidase activity, so retaining the bonds between sialic acid and cell surface proteins, and trapping the virus in sugars on the outside of the cell.

The influenza virus is highly mutable, and comes in many different strains. This has made it difficult to locate a stable target to prevent viral replication. After three decades, researchers discovered that the role of neuraminidase is constant. Once this had been identified, Relenza was designed using computational chemistry.

Persuading the government of the drug's value has proved a different matter. Glaxo Wellcome says the drug reduces the duration of flu, the severity of the symptoms and the risk of secondary infections. But NICE says that, if used within 48 hours of the onset of symptoms, Relenza only reduces the duration of the illness by 24 hours — not the two to three days claimed by the company.

Crucially, because of the design of the clinical trials used by the company, NICE concluded there was "insufficient information to judge the extent to which the frequency of serious secondary complications in high-risk groups ... might be reduced". These groups are currently targeted by National Health Service (NHS) vaccination programmes. And, NICE says, it is difficult to see how most flu patients could be diagnosed within 48 hours within the NHS. Although some clinical work has shown that Relenza can limit the spread of flu between individuals in closed settings, it is not currently licensed for prevention.

The drug may have been the victim of unfortunate timing. With NICE needing to gain the confidence of the health professions, the public and parliament as early as possible, it would have been difficult for the government to reject its first advice.

NICE's rapid review of Relenza will not prejudice the full appraisal procedure that Relenza and a similar drug produced by the company Hoffman-La Roche are to undergo next year. **Natasha Loder**