

Hong Kong seeks secrets of Chinese medicine

David Cyranoski, Hong Kong

Hong Kong is aiming to establish itself as the global centre for the scientific study and commercial exploitation of traditional Chinese medicines.

The former British colony is to found a new Institute of Chinese Medicine, funded with HK\$500 million (US\$64 million) from the charitable trust of the Hong Kong Jockey Club, which runs part of the territory's lucrative gambling industry.

Hong Kong is currently trying to develop a licensing system for suppliers of traditional Chinese remedies. Advocates of the new institute say that it will help suppliers of the remedies to meet new regulatory requirements. At the moment, compounds used in Chinese medicine are not subject to normal regulation in many parts of the world. In the United States, for example, almost anything can be sold as a 'traditional medicine'.

Some scientists believe that a regulation drive will bring necessary legitimacy to the traditional remedies. But others fear that it could confer false legitimacy on compounds that have no proven medical value.

A commission led by Chang-lin Tien, former chancellor of the University of California, Berkeley, has advised the Hong Kong government that traditional Chinese medicine could represent a promising biomedical niche for the territory's scientists and entrepreneurs. Hong Kong's Innovation and Technology Commission, the main applied research funding body in the territory, has already spent more than HK\$100 million over the past few years on research into traditional medicine, involving many of Hong Kong's leading biomedical researchers.

"I'm now convinced the West could learn a lot from Chinese medicine," says Nikolaus Sucher of the Hong Kong University of Science and Technology. Sucher's laboratory has screened 22 of the some 600 materials used in Chinese traditional medicine that were selected because they may protect the brain from damage during a stroke.

Sucher's team identified compounds that block the activity of certain cell receptors — molecules in the cell membrane that receive signals and trigger responses in the cell. Excessive activity of these receptors during a stroke have been shown to kill cells. Sucher's results offer a possible explanation for the pharmacological activity of the compounds.

The new institute will start its operations by coordinating research activities and distributing grants, but will eventually erect its own building in Hong Kong's science park.

The news has attracted a lot of attention in the rest of China, says Yitao Wang, a former vice-president of the China Academy of Traditional Chinese Medicine. Wang says he knows of no such concentrated investment



Medicine men: should Hong Kong's biotechnology industry be buying into traditional remedies?

in traditional Chinese medicine anywhere else. "Given its historical and business connections to the West and its close cultural connections to China, Hong Kong could very well become the centre for internationalization of Chinese medicine," Wang says.

But some foreign and Hong Kong native researchers are less impressed. "Hong Kong is late into the race," says one visiting researcher. "Even in the United States and Europe, big pharmaceutical companies are doing research on Chinese medicine." The researcher also expresses concern over what he terms the authorities' "obsession" with traditional medicine.

Sucher and other supporters of the institute are confident that easy access to the materials and clinical histories — often available only in Chinese — will enable Hong Kong to compete with the "brute force" screening of materials carried out elsewhere. "We can be more selective," says Michael Yang of City University of Hong Kong, who is working on microarrays for screening traditional compounds.

Meanwhile, researchers in Hong Kong are jockeying for institute grants, details of which will be determined at the institute's next board meeting in August.

▶ <http://www.info.gov.hk/itc>

US blood ban underlines CJD fears

Meredith Wadman, Washington

The US government is tightening its restrictions on blood donors in an effort to prevent the spread of the human form of mad cow disease. Variant Creutzfeldt-Jakob disease (vCJD) has killed about 100 people, mostly in Britain.

Advisers to the Food and Drug Administration (FDA) met on 28 June and recommended expanding an existing blood-donor ban to include people who have spent five years or more in Europe since 1980. They also recommended banning donors who lived in Britain for three months or more between 1980 and 1996. Current restrictions, put in place in 1999, ban donors who spent six months or more in Britain during that period.

The recommendations of the Transmissible Spongiform Encephalopathies Advisory Committee are only advisory, but the agency is expected to implement them.

In January, the advisory panel

recommended that the agency ban blood donors who had spent 10 years in what it considered to be the high-risk countries of France, Portugal or Eire since 1980 (see *Nature* 409, 441; 2001). But the FDA, unsatisfied at the failure to address risks in the rest of Europe, asked the panel to reconsider the problem.

The FDA estimates that the new restrictions will reduce the number of blood donors by about 5%. Some officials opposed the new restrictions, arguing that they would reduce an already tight blood supply.

From September, the Red Cross plans to exclude donors who have spent six months or more in Europe since 1980. The FDA says that such a move would reduce total blood donors in the United States by up to 9%.

So far, there has been no epidemiological evidence that vCJD has been transmitted by blood, but animal models suggest that this may be possible. There is no validated test that allows the screening of blood donors.