

Japanese media fuel fears of 'endocrine disrupters'

[TOKYO] Scientists in Japan claim the public is overreacting to concerns about the possible effects of 'endocrine disrupters', synthetic compounds suspected of disrupting human reproductive functions. They argue that media reports describing them as "deadly" or "fatal", despite the lack of clear scientific evidence, are exaggerated and misleading.

Research into the effects of the chemicals, known in Japan as 'environmental hormones', has recently expanded substantially, largely in response to public concerns.

One source of concern was a report released in March by a Teikyo University researcher claiming that only one of 34 sperm samples obtained from healthy university students had a normal sperm count. The report, which implicated endocrine disrupters as a possible cause, has been criticized as unreliable, not least because it involved only 34 samples as opposed to 15,000 in a similar study in Scandinavia in 1992.

A subsequent report released by the National Health Institute, which concluded that endocrine disrupters could be extracted from styrene dimers and trimers, which are used to make instant noodle containers, triggered media reports claiming that eating 'instant food' can cause infertility.

Over ¥18 billion (\$125 million) has been allocated from the government's supplementary budget for research into endocrine disrupters (see *Nature* 392, 748; 1998), and various ministries and agencies plan to monitor harmful chemicals in the environment.

Last month, the Environment Agency announced plans for a framework for tackling the problem of endocrine disrupters, which are unregulated in Japan. Although 67 chemicals, including dioxins, bisphenol and polychlorinated biphenyl compounds (PCBs), are classified as endocrine disrupters, their effects on the human reproductive system remain unknown, so regulations cannot be imposed.

According to the agency, which received ¥7.3 billion for research into endocrine disrupters for this fiscal year, beginning in April, designing a framework will be the first step towards new regulations, which will be set when chemicals are confirmed to be harmful. Research into their effects will be carried out at a laboratory to be built this year at the agency's National Institute for Environmental Studies (NIES).

The Ministry of Trade and Industry and the Ministry of Health and Welfare, each allocated ¥1.5–1.65 billion for the research, will collaborate to develop a high-speed screening device to analyse and classify chemicals.

Other research will look into methods for calculating levels of endocrine disrupters in

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the environment, and set measures to minimize their spread. Dioxins, for example, are released into the air by burning waste, and PCBs, found in electrical equipment, are extracted from rivers and stream sediments.

Scientists have launched an academic society to promote an interdisciplinary approach to the problem. At its first meeting, held in Tokyo last week, its chairman, Tsuguyoshi Suzuki, ex-president of NIES, explained that the society's main aim is to "help protect public health by providing expertise to environmental policy makers, and this can only be done through a multi-disciplinary approach".

Researchers in Japan have been emphasizing the importance of work on endocrine disrupters for years, but little attention was given to the problem until this year. "While it is encouraging to see active interest in the issue by the government and the scientific community, it is imperative that more basic research is done," says Chisato Mori, associate professor in anatomy at Kyoto University.

Many point out that most of the budget is allocated to constructing buildings and buying equipment, with very little for research itself. "The government's current effort must not end as a temporary measure," says Mori.

Others have expressed concern over what they claim is misleading media coverage. In extreme cases, the chemicals have been blamed for a recent increase in violent crime among Japanese youths.

Taisen Iguchi, a professor in functional physiology at Yokohama City University, accepts that the media helped bring the subject to light, but says it must also be blamed for creating public misunderstanding.

"Since dioxins, classified as 'endocrine disrupters', have long been a problem in Japan for their carcinogenic properties, people have concluded that other chemicals are equally dangerous," says Iguchi. "Our top priority should be to take a balanced, objective view of the subject and, most importantly, uncover the potential effect of dioxins on human developmental mechanisms."

Asako Saegusa

Canada putting its faith in consolidation in health sector

[MONTREAL] The Medical Research Council of Canada (MRC) is planning to combine the country's 16 main academic health science centres and all other academic elements of the healthcare system into an integrated body, the Canadian Institutes of Health Research.

At present, the various components are only loosely coordinated. The proposed body would bring together the 16 health science centres, 50 teaching hospitals and 65 research institutes, which together employ more than 150,000 people full-time. Their combined annual operating budget is about Can\$16 billion (US\$10.9 billion).

The draft of the plan says that creation of the institutes "would energize the health research enterprise the way Medicare did the hospitals and health professionals more than 30 years ago with linkages and coordination around agreed national principles, supported by internationally competitive funding levels."

It adds that the Canadian health research enterprise constitutes an enormous asset base with the potential to become an even more effective foundation for the healthcare system. Modern information technology allows a degree of collaboration and sharing "that would encourage great research synergies".

The new integrated network "would identify and set priorities among emerging health issues," says the draft. Information flow would be stimulated between basic and clinical research and practice. This would decrease the lag "between precept and practice, and expedite the translation of new knowledge into effective patient care."

Salary support would be provided to those engaged in important and innovative research, and research teams identified as capable of internationally competitive work would receive "internationally commensurate levels of funding".

The draft plan notes that health research funding in Canada has not kept pace with that in the other leading industrialized (G7) countries. Although this year's federal budget provided an increase in funding in MRC's base budget, the present level (Can\$267 million) is at 1994–95 levels.

Canada's healthcare system is operated by provincial and territorial governments, with about 25 per cent of funding coming from federal government tax transfers, which have been falling in recent years, and through direct cash payments. Canadian health spending, forecast at Can\$76.6 billion in 1997, is approximately Can\$2,500 per person.

Federal health minister Allan Rock has already discussed the plan with the MRC. All representative groups will now be contacted and a national conference will be held in October.

David Spurgeon