

## **An Interim Report from the Study Group on Health Effects of Endocrine Disrupting Chemicals**

### **I. Introduction**

In recent years, there has been an emerging concern that certain types of chemicals, including organochloric pesticides, plasticizers in plastic containers, and surfactants in detergents, may disrupt endocrine functions and have adverse effects on human health (the so-called endocrine disruptor issue). This issue includes many problems to be resolved scientifically, and there is a wide variety of indicated chemicals and health effects. Therefore, discussions are being conducted domestically and internationally on the relationship between these chemicals and health effects.

The Ministry of Health and Welfare is promoting research and studies on this issue so that it may handle new types of problems with chemicals if they occur. This work is part of varying activities which the Ministry has conducted against chemical issues such as public pollution, in view of the protection of public health, including the enactment and amendment of “the Law concerning the Examination and Regulation of Manufacture etc. of Chemicals,” “the Food Sanitation Law,” and “the Water Works Law.”

A task group of the 1996 Health Sciences Research Program collected information on health effects of substances with estrogenic activities in “A Study on the Crisis Management of Chemicals (chief researcher: Dr. Morio Sedaka, Professor, Faculty of Pharmaceutical Science, Teikyo University).” This study was part of “the review of approaches for crisis management in the chemical field.” The group focused on a series of chemicals which are expected to have estrogenic activities, including insecticides such as DDT and other pesticides whose use was discontinued. Then, the group discussed necessary approaches for the target chemicals based on biological activities, in collaboration with the Organization of Economic Cooperation and Development (OECD). The group compiled the study into a report titled “the Endocrine Issue” and indicated that this issue should be discussed continuously as it is of great importance. The report explains that pesticides need strict reproductive/developmental toxicity studies and two-generation reproduction studies to determine whether they have estrogenic

activities. The report also describes the possibility that chemicals with estrogenic activities can not be clarified using conventional testing systems and concepts. The Ministry has been conducting research and studies in cooperation with the OECD and the U.S. EPA.

For the endocrine disrupting chemical issue, many problems remain to be resolved scientifically. Therefore, we urgently need to tackle these problems (on a high-urgency basis) using a tiered program. The problems can be divided into the three tires: 1) urgent individual problems which are considered to need temporary risk management by analyzing available data on effects on the living body and exposure, 2) problems which require urgent measures for necessary research and studies because of the lack of information on exposure and effects on the living body, 3) problems which are expected to be resolved with the promotion of state-of-the-art science, based on the characteristics of the mechanism of effects of endocrine disruptors.

Under these circumstances, in April 1998, the Ministry of Health and Welfare established the Study Group on Health Effects of Endocrine Disrupting Chemicals (chairperson: Nobuyuki Itoh, President, Nagoya City University) as a private panel under the Director-General of the Environmental Health Bureau, in order to identify the nature of these problems and clarify the mechanism of effects of endocrine disruptors. Since then, sessions have been held fairly regularly. In addition, the Ministry has been promoting research and studies in collaboration with related ministries/agencies, laboratories, and academic bodies.

This publication was compiled based on findings and views obtained from specialized discussions of this Group, and considering the approaches of other countries. This publication describes our present understanding of endocrine disruptors and their health effects. It also indicates temporary plans and approaches of the Japanese government.

**Study Group on Health Effects of Endocrine Disrupting Chemicals**  
**Member List**

<b>Name</b>	<b>Title and Institution</b>
ABE, Kaoru	President, National Cancer Center
AOYAMA, Hiroaki	Chief, Laboratory of Reproductive Toxicology, Toxicology Division I, Institute of Environmental Toxicology
FUJIWARA, Fusako	Chairperson of the Board, Japan Association for Women's Education
IGUTI, Taisen	Professor, Department of Biology and Graduate School of Integrated Science, Yokohama City University
INOUE, Tohru	Chairperson, Cellular and Molecular Toxicology Division, Biological Safety Research Center, National Institute of Health Sciences
<u>ITO, Nobuyuki</u>	President, Nagoya City University
IWAMOTO, Teruaki	Professor and Chairman, Department of Urology, St. Marianna University School of Medicine
KUROKAWA, Yuji	Director, Biological Safety Research Center, National Institute of Health Sciences
MAGARA, Yasumoto	Professor, Department of Urban Environmental Engineering, Faculty of Engineering, Hokkaido university
MATUO, Masatosi	A Committee Member of the Endocrine Disruptors Working Group, Japan Chemical Industry Association
NISHIHARA, Tsutomu	Professor, Graduate School of Pharmaceutical Sciences, Osaka University
OSHIO, Shigeru	Assistant Professor, Department of Urology, Teikyo University School of Medicine
SHISHIBA, Yoshimasa	Director, Toranomon Hospital Kajigawa Campas
SUZUKI, Katsushi	Professor, Nippon Veterinary and Animal Science University
SUZUKI, Tuguyoshi	Former Director General, National Institute for Environmental Studies
TAKASUGI, Noboru	Chairman, Yokohama City Board of Education (Former President, Yokohama City University)
TAKATA, Tsutomu	Professor Emeritus of Kitasato University Director, Occupational Health Service Center, Japan Industrial Safety and Health Association
TAKETANI, Yuji	Professor and Chairman, Department of Obstetrics and Gynecology, Faculty of Medicine, University of Tokyo
TANAKA, Masaru	Director, Department of Waste Management Engineering, National Institute of Public Health
TERADA, Masaaki	Director, National Cancer Center Research Institute
TERAO, Tadao	Director General, National Institute of Health Sciences
TSUGANE, Shoichiro	Chief, Epidemiology and Biostatistics Division, National Cancer Center Research Institute East
WADA, Masae	Vice president, The Housewives' Federation
YAMAZAKI, Mikio	Professor Emeritus, Chiba University
YASUDA, Mineo	Professor, Hiroshima University School of Medicine

Note: Underlined is the chairperson

### **Meetings held to date**

- 1<sup>st</sup>     April 28, 1998 (Tues.)
- 2<sup>nd</sup>     May 27, 1998 (Wed.)
- 3<sup>rd</sup>     July 1, 1998 (Wed.)
- 4<sup>th</sup>     September 2, 1998 (Wed.)
- 5<sup>th</sup>     October 16, 1998 (Fri.)
- 6<sup>th</sup>     November 9, 1998 (Mon.)