

International Expert Symposium in Fukushima:  
Radiation and Health Risks

September 11-12, 2011  
Fukushima Medical University



## **International Expert Symposium in Fukushima: Radiation and Health Risks**

**September 11-12, 2011**

**Fukushima Medical University**

### **Purpose**

In the ten years following 1991, The Nippon Foundation and the Sasakawa Memorial Health Foundation worked together in conducting health examinations of approximately 200,000 children living in the region affected by the Chernobyl accident. The scientific data collected in the process was made available to such international organizations as the WHO and the IAEA, and was highly evaluated. Building on the experience gained from this project, The Nippon Foundation will hold a symposium of international experts in radiation- and health-related fields, in which the health effects of radiation from the Fukushima nuclear accident will be subjected to scientific examination. The symposium has four purposes: evaluation of the health risks faced by people living in Fukushima; support for the planned "Fukushima Residents' Health Management Survey;" consideration of new global measures for radiation safety and protection; and general contribution to the recovery of Fukushima.

### **Session Themes**

1. Facts of Fukushima: radiation-related emergency medical response and regulations for radiation protection in Japan
2. Low-level irradiation and health: challenges involved in emergency therapy following irradiation, and the future of the field
3. Dose, dosimetry and dose estimations of contaminated areas
4. Radiobiology and radiological protection/safety: fundamentals, epidemiology and molecular epidemiology
5. Lessons learned from the Chernobyl accident
6. Radiation safety and guidelines regarding health risks
7. Recommendations for countermeasures for future radiation-related health risks

**Time:** September 11 (Sun.) – 12 (Mon.), 2011

**Place:** Conference Center, Fukushima Medical University (1 Hikarigaoka, Fukushima City)

**Sponsor:** The Nippon Foundation

### **Co-sponsors:**

International Commission on Radiological Protection  
Sasakawa Memorial Health Foundation  
Fukushima Medical Association  
Fukushima Medical University  
National Institute of Radiological Sciences

**Also supported by:** National Japanese government offices: Cabinet Office; Ministry of Justice; Ministry of Foreign Affairs; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labor and Welfare; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure and Transport; Ministry of the Environment. Prefectural office: Fukushima Prefectural Government

### **Organizing Committee:**

Yohei Sasakawa (Committee Chairman; Chairman of The Nippon Foundation)  
Kenzo Kikuni (Chairman of the Board, Sasakawa Memorial Health Foundation)  
Shinichi Kikuchi (President, Fukushima Medical University)  
Ohtsura Niwa (Professor Emeritus, Kyoto University)  
Shunichi Yamashita (Vice President, Fukushima Medical University; Professor, Nagasaki University)  
David L. Heymann (Chatham House Centre on Global Security)  
Fred A. Mettler, Jr. (U.S. Representative, United Nations Scientific Committee on the Effects of Atomic Radiation)

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**Background and Purpose**

On March 11, 2011, as a result of the Great East Japan Earthquake, the Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Station was severely damaged, resulting in a nuclear accident that has yet to be fully contained. In recent days, it is true that a number of issues related to emergency radiation treatment have been clarified. On the other hand, however, local residents have been forced to lead difficult lives in a contaminated environment, resulting in a steady increase in anxiety and distrust. Further, contradictory information regarding radiation safety and protection has been circulating, resulting in social disruption that actually threatens a breakdown in the regional community and may complicate recovery efforts. In addition, the information provided by Japan to the rest of the world has been far from adequate. A much more complete disclosure is needed.

Nearly six months have passed since the accident. Due to the contamination of the environment, people who reside in the surrounding regions have been forced to evacuate and live in distress. At the same time, in those areas both inside and outside Fukushima, where radiation is a concern, parents are painfully worried about their children. The situation has been exacerbated by what can only be called an information disaster: the news circulating varies with the source which are sometimes inadequate. It is vital that we work to issue only correct, scientific information about the effects of radiation on health. For this reason, The Nippon Foundation has decided to create a venue where the world's experts in the area of treating radiation-related injury can come together to discuss how to deal with the health risks resulting from the accident, and correctly comprehend the situation there. The Foundation will hold the "International Expert Symposium in Fukushima: Radiation and Health Risks," this coming September 11 and 12, at the Fukushima Medical University, to obtain appropriate advice from the world's experts, and to communicate both correct information about the health risks resulting from radiation, and an understanding of just what it is that constitutes effective risk awareness. This information will be aimed not only at the residents of Fukushima but also the world at large.

About 30 foreign guests have been invited. All are leading researchers, representing various specializations, and come from Europe, the Americas and the former Soviet Union. They hail from such organizations as the United Nations Scientific Committee on the Effects of Atomic Radiation, the International Commission on Radiological Protection, the International Atomic Energy Agency, and the World Health Organization. Their discussions will be extremely important for Fukushima's future recovery and revitalization. We also hope to apply the ideas gained from the discussions as we develop our support efforts for the planned Fukushima Residents Health Management Survey, as well as to the establishment of new global measures for radiation safety and protection.

Organizing Committee  
International Expert Symposium in Fukushima:  
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# International Expert Symposium in Fukushima

## —Radiation and Health Risks —

September 11-12, 2011, Fukushima Medical University, Japan

### Sunday, September 11

8:00 -9:00    **Registration**

9:00-9:45    **Opening Addresses:**

Introduction: Kenzo Kiikuni (Sasakawa Memorial Health Foundation, Japan)  
David L. Heymann (Chatham House Centre on Global Health Security, UK)

Speakers: Yohei Sasakawa (The Nippon Foundation, Japan)  
Shin-ichi Kikuchi (Fukushima Medical University, Japan)  
Margaret Chan *video message* (Director General, World Health Organization)

9:45-10:45    **Keynote Speeches**

*Consequences of the Fukushima Nuclear Power Plant accident as combined disaster*

Makoto Akashi (National Institute of Radiological Sciences, Japan)

*The recommendations of the international commission on radiological protection vis-à-vis the Fukushima Dai-ichi NPP accident aftermath*

Abel Julio González (International Commission on Radiological Protection; Autoridad Regulatoria Nuclear, Argentina)

10:45-11:00    Coffee Break

11:00-12:30    **Session I: Facts of Fukushima**

Co-chairs: Seïichi Takenoshita (Fukushima Medical University, Japan)  
Kazuhiko Maekawa (University of Tokyo, Japan)

*Radioactive contamination of the environment and radiation doses to the public*  
Toshimitsu Homma (Japan Atomic Energy Agency)

*Experience and lesson from Fukushima Daiichi Nuclear Disaster*  
Kenji Kamiya (Hiroshima University, Japan)

*Internal exposure caused by the Fukushima nuclear accident*  
Kazuo Sakai (National Institute of Radiological Sciences, Japan)

12:30-13:30    Lunch Break

**13:30-15:15 Session II: Radiation Health Effects: Low-level Irradiation and Health, Challenges Involved in Emergency Medicine**

Co-Chairs: Yoshiharu Yonekura (National Institute of Radiological Sciences, Japan)  
Timothy Walker (Former Health and Safety Executive, UK)

*Medical effects and risks of exposure to ionizing radiation*  
Fred A. Mettler Jr (University of New Mexico, USA)

*Epidemiological investigations of aircrew - an occupational group with low-level cosmic radiation exposure*  
Hajo Zeeb (University of Bremen, Germany)

*Health risks associated with environmental radiation exposures*  
Scott Davis (University of Washington, USA)

*Emergency medical preparedness for radiological/nuclear incidents*  
C. Norman Coleman (National Cancer Institute, USA)

*Radiation epidemiology: a perspective on Fukushima*  
John D. Boice Jr. (International Epidemiology Institute, USA)

15:15-15:30 Coffee Break

**15:30-16:15 Session III a: Dose, Dosimetry and Dose Estimations of Contaminated Areas**

Co-Chairs: Toshiteru Okubo (Radiation Effects Research Foundation, Japan)  
Wolfgang Weiss (Federal Office for Radiation Protection, Germany)

*Dosimetric quantities in radiological protection and in risk assessments*  
Hans-Georg Menzel (European Organization for Nuclear Research, Switzerland)

*Estimation of internal radiation dose from both immediate releases and continued exposures to contaminated materials*  
Bruce Napier (Pacific Northwest National Laboratory, USA)

*Chernobyl accident and fallout from nuclear weapons tests: dosimetry, countermeasures, and epidemiology*  
Andre Bouville (National Cancer Institute, USA)

**16:15-17:00 Session III b: Radiobiology and Radioepidemiology**

Co-Chairs: Toshiteru Okubo (Radiation Effects Research Foundation, Japan)  
Wolfgang Weiss (Federal Office for Radiation Protection, Germany)

*Implication of stem cells in radiation risks of in utero exposures and low dose rate*  
Ohtsura Niwa (Kyoto University, Japan)

*Radiation and cancer risk in atomic bomb survivors*  
Kazunori Kodama (Radiation Effects Research Foundation, Japan)

**19:00 Reception at Fukushima View Hotel**

Monday, September 12

**9:30-11:00 Session IV: Lessons Learned from the Chernobyl Accident**

Co-Chairs: Kiyohiko Mabuchi (National Cancer Institute, USA)  
Arthur Schneider (University of Illinois at Chicago, USA)

*Lessons of Chernobyl and prognosis for Fukushima: radiological consequences*  
Victor Ivanov (Ministry of Health and Social Development of the  
Russian Federation, Russia)

*Chernobyl Experience in the area of retrospective dosimetry*  
Vadym V. Chumak (National Academy of Medical Sciences of  
Ukraine, Ukraine)

*Thyroid cancer in Ukraine after the Chernobyl Accident (in the framework of the  
Ukraine-U.S. Thyroid Project)*  
Mykola (Nikolai) D. Tronko (Ukrainian Research Institute of  
Endocrinology and Metabolism, Ukraine)

*Mental health consequences of the Chernobyl accident*  
Evelyn J. Bromet (Stony Brook University, USA)

*The Chernobyl Tissue Bank: integrating research on radiation-induced thyroid cancer*  
Geraldine A. Thomas (Imperial College London, UK)

11:00-11:15 Coffee Break

**11:15-12:45 Session V: Radiation Safety and Guidelines Regarding Health Risks**

Co-Chairs: Akihiro Shima (Institute for Environmental Sciences, Japan)  
Christopher H. Clement (International Commission on Radiological  
Protection, Canada)

*Radiation protection principles*  
John R. Cooper (Health Protection Agency, UK)

*Cancer models and radiation protection*  
Richard Wakeford (The University of Manchester, UK)

*Protection of people living in long term contaminated areas after a nuclear accident: the  
recommendations of ICRP Publication 111*  
Jacques Lochard (Nuclear Protection Evaluation Centre, France)

*Some lessons on radiological protection learned from the accident of the  
Fukushima Daiichi nuclear power plant*  
Michiaki Kai (Oita University of Nursing and Health Sciences, Japan)

12:45-13:45 Lunch Break

**13:45-14:45 Session VI: Discussion and Recommendations**

Co-Chairs: Abel Julio González (International Commission on Radiological Protection, Autoridad Regulatoria Nuclear, Argentina)  
Shunichi Yamashita (Fukushima Medical University, Nagasaki University, Japan)

*New Perspective of Severe Nuclear Accidents*  
Jaiki Lee (Hanyang University, Korea)

*Preparing a scientific report to the General Assembly on Exposures due to the nuclear accident following the Great East-Japan earthquake and tsunami – the current status of UNSCEAR activities*

Wolfgang Weiss (Federal Office for Radiation Protection, Germany)

Comments: Igor Gusev (International Atomic Energy Agency)  
Jan Wondergem (International Atomic Energy Agency)  
Emilie van Deventer (World Health Organization)

14:45-15:00 Coffee Break

**15:00-16:00 Session VI (continued)**

Discussions  
Recommendations

**16:00-16:30 Closing of the Symposium**

Speakers: Kenzo Kiikuni (Sasakawa Memorial Health Foundation, Japan)  
David L. Heymann (Chatham House Centre on Global Health Security, UK)

**17:00-18:00 Press Conference**