

July 13 (Friday)

9:00- **Opening remarks**

*Tsutomu Sugahara, Chairperson of International Symposium on Radiation and Homeostasis
President of Health Research Foundation*

Plenary Symposium I.

Room D

Epidemiological Findings of Radiation Carcinogenesis

Chairpersons: Roy Shore (USA)
Kiyohiko Mabuchi (USA)

9:15- I-1 Current Results on Mortality and Cancer Incidence among Atomic Bomb Survivors
Preston DL, Shimizu Y, Pierce DA, Koyama K, Soda M (Japan)

9:45- I-2 Risk Estimates for Fast Neutrons and Implications for Radiation Protection
Kellerer AM (Germany)

10:15- I-3 Gaps in the Epidemiology of In Utero Exposure Effects
Shore R (USA)

10:45-11:00 < Coffee break >

11:00- I-4 New Epidemiologic Data from the Former Soviet Union
Ron E (USA)

11:30- I-5 Genetic Susceptibility and Second Cancer Risks
Tucker MA (USA)

12:00-13:00 < Lunch time >

Plenary Symposium II.

Room D

Low Dose Radiation Carcinogenesis

Chairpersons: Colin R. Muirhead (UK)
Taisei Nomura (Japan)

13:00- II-1 Methodological Aspects of Low Dose Epidemiological Studies
Muirhead CR (UK)

13:30- II-2 Recent Advances of "Epidemiological Study in High Background Radiation Area in Yangjiang, China"
Wei LX, Sugahara T (China)

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- 14:00- II-3 Induction of Myeloid Leukemias in C3H/He Mice with Low Dose Rate γ -Irradiation
Furuse T, Ohtsu H, Noda Y (Japan)
- 14:30- II-4 Dose and Dose Rate Effect in Mutagenesis, Teratogenesis and Carcinogenesis
Nomura T (Japan)
- 15:00-15:15 < Coffee break >

Plenary Symposium III.

Room D

Molecular Analysis of Radiogenic Tumors: Experimental

Chairpersons: Cristian Streffer (Germany)
Robert L. Ullrich (USA)

- 15:15- III-1 Positional Cloning for Genes Involved in Radiation Induced Thymic Lymphoma
Kominami R, Wakabayashi Y, Inoue J, Matsuki A, Kosugi-Okano H, Matsuki A, Saito Y, Ochiai Y, Kodama Y, Takahashi Y, Mishima Y, Niwa O (Japan)
- 15:45- III-2 Molecular Analysis of Radiation Induced Thymic Lymphomas in Scid Mice
Ogiu T, Ishii-Ohba H, Kobayashi S, Nishimura M, Shimada Y, Tsuji H, Ukai H, Watanabe F, Suzuki H, Sado T (Japan)
- 16:15- III-3 7636del9 (delSRI) Atm Mutation Predisposes to Cancer
Lavin MF, Spring K, Ahangari F, Scott S, Chen PC, Watters D, Hourigan K, MacKinnon P, Swift M (Australia)
- 16:45- III-4 Impaired Telomere Function, Radiation-induced Instability and Tumorigenesis
Bailey SM, Ponnaiya B, Ullrich RL, Goodwin EH (USA)
- 17:15- III-5 Genetic Analysis of Radiation-induced Mouse Hepatomas
Kamiya K, Masuda Y, Sumii M, Koike N, Takahashi M, Teishima J (Japan)
- 17:45- III-6 Analysis of Tsc2 Gene in Radiation Induced Kidney Tumors of Eker Rat
Hino O (Japan)
- 18:15- III-7 *PTCH* (patched) and *XPA* Genes in Radiation-induced Basal Cell Carcinomas
Burns FJ, Shore RE, Roy N, Loomis C, Zhao P (USA)

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Plenary Symposium IV.

Room D

Molecular Analysis

Chairpersons: Monica Hollstein (Germany)
Yuichi Ishikawa (Japan)

- 9:00- IV-1 Transgenic Murine Models of Human Cancer: Bridging the Gap from Mouse to Man
Luo JL, Zielinski B, Hergenbahn M, Hollstein M (Germany)
- 9:30- IV-2 Cancers Induced by Alpha-particles from Thorotrast
Ishikawa Y, Wada I, Fukumoto M (Japan)
- 10:00- IV-3 The *p53* and *M6P/IGF2r* Genes of Thorotrast- and Atomic Bomb-induced Liver Cancers: A Glimpse into the Mechanisms of Radiation Carcinogenesis
Iwamoto K (USA)
- 10:30-10:45 < Coffee break >
- 10:45- IV-4 Molecular Epidemiology of Childhood Thyroid Cancer around Chernobyl
Yamashita S (Japan)
- 11:15- IV-5 Molecular Analysis of Radiation-induced Thyroid Carcinomas in Humans
Rabes HM (Germany)

Poster Session

Room D

- 11:45-13:45 Brief introduction of posters. Poster presenters (P-1 - P-35) will make 3-minute oral presentation to outline their posters. An overhead projector will be available. Lunch box will be served for all participants.

Plenary Symposium V-1.

Room D

Molecular and Cellular Mechanism of Radiation Responses

Chairpersons: Jurgen Kiefer (Germany)
Masao S. Sasaki (Japan)

- 13:45- V-1 Transmission of Damage Signals from Irradiated to Non-irradiated Cells
Little JB, Azzam EI, Nagasawa H, deToledo SM (USA)
- 14:15- V-2 Specific Gene Expression by Extremely Low-dose Ionizing Radiation which is Related to Enhances Proliferation of Normal Human Diploid Cells
M. Watanabe, Suzuki K, Kodama S (Japan)

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- 14:45- V-3 The Yin and Yan of Bystander versus Adaptive Response: Lessons from the Microbeam Studies
Hei TK, Zhou HN, Suzuki M, Randers-Pehrson G, Waldren CA, Hall EJ (USA)
- 15:15- V-4 Deficient PCNA Expression and Radiation Sensitivity
Woloschak GE, Paunesku T, Protic M (USA)
- 15:45- V-5 p53 and IGFBP-3 Regulation in the DNA Damage Response
Clark MA, Perks CM, Farndon JR, Norbury CJ, Holly JMP, Winters ZE (UK)
- 16:15-16:30 < Coffee break >

Plenary Symposium V-2.

Room D

Molecular and Cellular Mechanism of Radiation Responses

Chairpersons: Tom K. Hei (USA)
Seiji Kodama (Japan)

- 16:30- V-6 Apoptotic Regulation, Mutagenesis and Homologous Recombinational Repair in Human Lymphoid Cells Exposed to Ionizing Radiation
Kronenberg A, Cherbonnel-Lasserre CL, Hain J, Liu WC, Wu P, Jasin M, Pierce A, Wiese C (USA)
- 17:00- V-7 Mutation Induction by Very Low Dose Rate Gamma-rays in Human Cells
Kiefer J, Kohlpoth M, Kuntze M (Germany)
- 17:30- V-8 DNA-PK Activity Depressed Radioadaptation of Apoptosis Induced by Pre-irradiation at Low-dose or Low-dose Rate in Mouse Spleen
Ohnishi T, Takahashi A, Ohnishi K (Japan)
- 18:00- V-9 The Responses of the Haemopoietic System to Ionizing Radiation
Wright EG (UK)
- 18:30- V-10 Gene Expression Profile Analysis of ATM and p53 Knockout Mice
Abe M (Japan)

July 15 (Sunday)

Plenary Symposium VI.

Room D

Tissue Responses

Chairpersons: Christopher S. Potten (UK)
Osamu Nikaido (Japan)

- 9:00- VI-1 A Retrospective Analysis of Tumor Induction in Mice after Fractionated Irradiation with Carbon Ions
Koike S, Ando K, Oohira C, Ogiu T (Japan)
- 9:30- VI-2 Intestinal Metaplasia Induced by X-irradiation -Its biological characteristics-
Watanabe H (Japan)
- 10:00- VI-3 Aberrant Extracellular Signaling in the Progeny of Irradiated Human Cells
Barcellos-Hoff MH (USA)
- 10:30-10:45 < Coffee break >
- 10:45- VI-4 Apoptosis Induced in Small Intestinal Crypts by Low Doses of Radiation Protects the Epithelium from Genotoxic Damage
Potten CS (UK)
- 11:15- VI-5 Radiation-induced Apoptosis and its Role in Tissue Responses
Hendry JH (UK)
- 11:45- VI-6 Essential Role of *p53* Gene in Apoptotic Tissue Repair for Radiation-induced Teratogenic Injury
Norimura T, Kato F, Nomoto S (Japan)

Poster Session

Room D

- 12:15-14:00 Brief introduction of posters. Poster presenters (P-36 - P-66) will make 3-minute oral presentation to outline their posters. An overhead projector will be available.
Lunch box will be served for all participants.

July 15 (Sunday)

Plenary Symposium VII.

Room D

Susceptibility

Chairpersons: Harvey W. Mohrenweiser (USA)
Ryo Kominami (Japan)

- 14:00- VII-1 Individual Differences in Chromosomal Radiosensitivity: Implications for Radiogenic Cancer
Scott D (UK)
- 14:30- VII-2 Variation in DNA Repair Genes in the Human Population: Potential Relationships to Cancer Risk
Mohrenweiser HW, Jones IM (USA)
- 15:00- VII-3 Identification of Genes Influencing Individual Sensitivity to Radiation-induced Osteosarcoma
Rosemann M, Kuosaite V, Nathrath M, Atkinson MJ (Germany)
- 15:30- VII-4 Susceptibility Loci for Radiation-induced Lymphomas in Mice
Mori N, Okumoto M (Japan)
- 16:00-16:15 < Coffee break >
- 16:15- VII-5 Genetic Control of Susceptibility to Radiation-induced Breast Cancer
Ullrich RL (USA)
- 16:45- VII-6 Age-dependence of Susceptibility for Long-term Effects of Ionizing Radiation
Sasaki S (Japan)
- 17:15- VII-7 Nutrition Status and Radiation Induction of Cancer in Mice
Yoshida K, Hirabayashi Y, Sado T, Inoue T (Japan)

Poster Session

Room J-K

- 17:50-18:30 Poster presenters will stand in front of their posters and answer questions from participants.
- 18:30-18:50 Poster Removal
- 19:00- < Banquet >
Banquet Hall "Sakura"

July 16 (Monday)

Plenary Symposium VIII.

Room D

General Discussion

Chairpersons: John B. Little (USA)
Tsutomu Sugahara (Japan)

Six speakers will give a short note related to the current radiation policy, and then discussion follows.

- 9:00- Cristian Streffer (Germany)
- 9:20- Dudley T. Goodhead (UK)
- 9:40- Hiromichi Matsudaira (Japan)
- 10:00- Lowell G. Ralston (USA)
- 10:20- Masao S. Sasaki (Japan)
- 10:40- Warren K. Sinclair (USA)
- 11:00-12:00 Free discussion and summary of the session

- 12:00 Closing of the Symposium