10. List of Original Papers

This list includes main publications by the staff members issued during the period from April 1, 2003 to March 31, 2004

* Co-researcher outside the institute

Research Center for Radiation Safety

Low Dose Radiation Effects Research Project
2. Hideo Tsuji, Hiroko Ishii, Hideki Ukai, Takanori Katsube, Toshiaki Ogiu: Radiation-induced deletions in the 5’ end region of Notch1 lead to the formation of truncated proteins and are involved in the development of mouse thymic lymphomas, Carcinogenesis, 24, 1257-1268, 2003
5. Yasushi Ohmachi, Yuka Ishida, Takeshi Hiraoka, Tsuyoshi Hamano, Shinji Fushiki, Toshiaki Ogiu: Postnatal Changes in Mice Exposed In Utero to Fast Neutrons, Journal of Toxicologic Pathology, 17(1), 63-68, 2004

Project of "Physical and Biological protection of Man from Space Radiation"
(International Space Radiation Laboratory)


**Establishment of radiation protection system against radioactive materials released into the environment**

(Environmental Radiation Protection Research Group)


Chronic Liver Disease Caused by Hepatitis C Virus, *Oncology*, 65(4), 323-330, 2003


**Environmental and Toxicological Sciences Research Group**


**Studies on environmental radon and its biological effects**

(Radon Research Group)


3. Hidenori Yonehara: Safe Management of Spent Radiation Source (3) Current Status of Spent


**Research on redox regulation against radiation**

(Redox Regulation Research Group)


**Basic study of radiation hazards** *(Radiation Research Group)*


5. Tomohisa Hirobe, Masatake Osawa*, Shin-ichi Nishikawa*: Steel factor controls the Proliferation and Differentiation of neonatal mouse epidermal melanocytes in culture, *Pigment Cell Research*, 16(6), 644-655, 2003


**Analysis of gene networks in response to ionizing**
radiation

(Transcriptome Profiling Research Group)
5. Masahiro Muto, et.al: TCR delta gene rearrangements revealed by fine structure of the recombination junction in mice., Microbiology and Immunology, 47(11), 883-94, 2003

Development of Experimental Animals for Research on the Biological Effects of Radiation

(Laboratory Animal Research Group)
1. Hiromi Omoe, Katsuhiko Omoe*, Satoru Matsushita, Hideki Kobayashi*, Koushi Yamamoto*: Polymerase chain reaction with a primer pair in the 16S-23S rRNA spacer region for detection of Mycoplasma pulmonis in clinical isolates, Comparative Immunology, Microbiology & Infectious Diseases, 27(2), 117-128, 2004
2. Hiromi Omoe, Katsuhiko Omoe*, Masahiro Sakaguchi*, Yousuke Kameoka*, Satoru Matsushita, Toshiki Inada*: Analysis of protein expression by mammalian cell lines stably expressing lactate dehydrogenase-elevating virus ORF 5 and ORF 6 proteins., Comparative Immunology, Microbiology & Infectious Diseases, 27(2), 81-92, 2004

Studies on Experimental Carcinogenesis Induced by Plutonium Compounds

(International Radiation Effects Research Group)

Research Center for Radiation Emergency Medicine

The study for radiation emergency medical
1. Hisayoshi Kondo, Sang-hee Park, Keiko Watanabe, Yasuhiro Yamamoto, Makoto Akashi: Polyphenol (-)-epigallocatechin gallate inhibits apoptosis induced by irradiation in human HaCaT keratinocytes, Biochemical and Biophysical Research Communications, 316, 59-64, 2004


Research Center for Charged Particle Therapy

Heavy Ion Clinical Trial
(Hospital)


**Development of four-dimensional CT (4D CT)**
(Department of Medical Physics)

**Next generation PET project**
(Department of Medical Physics)

**R&D Studies of a Compact Accelerator for Carbon Therapy**
(Department of Accelerator Physics and Engineering)

**Development of a precise irradiation system for heavy-ion therapy**
(Department of Medical Physics)

**Establishment of dosimetry and beam quality measurements of heavy-ion beams**
(Department of Accelerator Physics and Engineering, Department of Medical Physics)
1. Akifumi Fukumura, Tatsuaki Kanai, Nobuyuki Konematsu, Ken Yusa, Akira Maruhashi*, Akihiro Nohtomi*, Teiji Nishio, Munefumi Shinbo, Takashi Akagi, Toshihiro Yanou*, Shigekazu

**Biological Effectiveness of Charged particle Radiotherapy**

*(Heavy-Ion Radiobiology Research Group)*


**Medical Imaging Research and Associated Mission**

*(Department of Medical Imaging)*


13. Toshiaki Osuga*, Takayuki Obata, Hiroo Ikehira: Proton magnetic resonance imaging of flow motion of heavy water injected into a hollow fiber dialyzer filled with saline, Magnetic Resonance Imaging, 22(3), 413-416, 2004


**Electron Density Measurement with Dual-Energy X-ray Computed Tomography**

(Deartment of Accelerator Physics and Engineering)


**Study of dose estimation and protection of patients and medical staffs on medical radiation**

(Deartment of Medical Physics)


**Bain Imaging Project**

1. Tetsuya Suhara, Akihiro Takano, Yasuhiko Sudo*, Tetsuya Ichimiy, Makoto Inoue, Yoshiro Okubo, Fumihiro Yasuno, Youko Ikoma: High levels of serotonin transporter occupancy with low dose clomipramine in comparative occupancy study with fluvoxamine using positron emission tomography., Archives of general psychiatry, 60, 386-391, 2003


○ Frontier Research Center

**RadGenomics Project**