

FY2024 Adopted Joint Usage/Research Projects (As of July 17, 2024)

Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New · Conti.
<b>【Projects responding to Fukushima Nuclear Power Plant accident】</b>					
1. Research on low-dose and low-dose rate radiation effects					
Investigation of the effects of chronic exposure of low dose radiation on animal health	MURATA TAKAHISA	The University of Tokyo	Osamu Kaminuma	Hiroshima University	Conti.
A study on radiation effects to the circulatory system of wild-type mice	Nobuyuki Hamada	Central Research Institute of Electric Power Industry (CRIEPI)	Yukihito Higashi	Hiroshima University	Conti.
Role of tumor microenvironment in radiation-induced tumor	Shimura Tsutomu	National Institute of Public Health	Megumi Sasatani	Hiroshima University	Conti.
Analysis of somatic mutation induction by using a hyper-sensitive system	Tauchi Hiroshi	Ibaraki University	Keiji Suzuki	Nagasaki University	Conti.
Genome-wide analysis for the transgenerational effects of low-dose radiation exposure	Uchimura Arikuni	Radiation Effects Research Foundation	Osamu Kaminuma	Hiroshima University	Conti.
The analysis of the specific mutational signatures induced by low-dose(-rate) irradiation using a SV-NGS method	Hidehiko Kawai	Hiroshima University	Megumi Sasatani	Hiroshima University	Conti.
Retaining of labels and DNA damage in rat mammary gland	Tatsuhiko Imaoka	National Institutes for Quantum Science and Technology	Keiji Suzuki	Nagasaki University	Conti.
Assessment of individual differences in radiosensitivity to low-dose-rate radiation using chromosomal aberrations	Masanori Tomita	Central Research Institute of Electric Power Industry	Satoshi Tashiro	Hiroshima University	New
Risk assessment of carcinogenesis due to exposure to tritiated water using a mouse model with high susceptibility to carcinogenesis	Toshiyuki Umata	University of Occupational and Environmental Health, Japan	Megumi Sasatani	Hiroshima University	Conti.
Biological effects of low-dose/low-dose-rate exposure on stem cells	IIZUKA DAISUKE	National Institutes for Quantum Science and Technology	Megumi Sasatani	Hiroshima University	Conti.
Live cell imaging using a genetic probe for detection of radiation effects	Kensuke Otsuka	Central Research Institute of Electric Power Industry	Keiji Suzuki	Nagasaki University	Conti.
Molecular pathogenesis of childhood and adolescent thyroid cancers	Fumihiko Furuya	Fukushima Medical University	Norisato Mitsutake	Nagasaki University	New
Simulation studies to reinforce the interpretation of the differences between results of animal experiments and epidemiological studies	Kazutaka Doi	National Institutes for Quantum Sciences and Technology	Megumi Sasatani	Hiroshima University	Conti.

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Simulation studies to evaluate the impact of confounding factors on risk estimates in low dose and dose rate radiation	Kazutaka Doi	National Institutes for Quantum Science and Technology	Shinji Yoshinaga	Hiroshima University	Conti.
Relationship of oxidative stress with cellular responses under low dose rate irradiation	Junya Kobayashi	International University of Health and Welfare	Shinya Matsuura	Hiroshima University	Conti.
Understanding of the impact of discharged wastewater to rainfall over Japan	Kurita, Naoyuki	Nagoya University	Hiroshi Yasuda	Hiroshima University	Conti.
The study of DNA damage accumulation in response to long-term low-dose/low-dose rate radiation exposure	Masatoshi Suzuki	Tohoku University	Keiji Suzuki	Nagasaki University	Conti.
Effect of X-rays on Amyloid $\beta$ -induced cell damage	Shinsuke Katoh	Yokohama University of Pharmacy	Yu Abe	Nagasaki University	New
Effect of low-dose/low-dose-rate radiation exposure on Th1/Th2 balance in mice	Eiji Takayama	Asahi University School of Dentistry	Tatsuo Ichinohe	Hiroshima University	Conti.
Factor analysis on the effects of radiation disasters on obesity in children in Fukushima Prefecture	Yugo Shobugawa	Niigata University	Tetsuya Ohira	Fukushima Medical University	Conti.
The investigation of relative biological effectiveness for continuous exposure to low concentration of tritium	Taku Sato	Tohoku University	Megumi Sasatani	Hiroshima University	New
Mechanisms of low-dose/low-dose-rate radiation-induced heart disease	ZAHARIEVA Elena Karamfilova	National Centre for Radiobiology and Radiation Protection (Bulgaria)	SASATANI Megumi	Hiroshima University	New
Regarding the Characteristics and Protection of Naturally Occurring Radioactive Material	Changting GUH	Graduate School of Frontier Sciences, The University of Tokyo	Seiko Hirota	Hiroshima University	New
High sensitivity analysis of DNA damage induced by ionizing radiation of low dose and low dose rate	Hiroaki Terato	Okayama University	Hiroshi Yasuda	Hiroshima University	Conti.
Histopathological examination of juvenile thyroid cancer in the area around Chernobyl and in Japan	Masahiro Ito	NHO Nagasaki Medical Center	Masahiro Nakashima	Nagasaki University	Conti.
Effect of mesenchymal stem cells on radiation-induced tissue injury	Nakashima Ayumu	Hiroshima University	Yukihito Higashi	Hiroshima University	New
Understanding anisakiasis by combining phylogenetic and molecular immunology	Maribet Gamboa	Universidad Catolica de la Santisima Concepcion	Osamu Kaminuma	Hiroshima University	New

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【Projects responding to Fukushima Nuclear Power Plant accident】

2.Development of diagnostic and treatment methods for internal radiation exposure

Exploration of biomarkers for the differential diagnosis of follicular thyroid cancer and novel drug-targeted molecules for their treatment	Osamu Ishibashi	Osaka Metropolitan University	Satoshi Tashiro	Hiroshima University	Conti.
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【Projects responding to Fukushima Nuclear Power Plant accident】

3.Research and development of radiation-protective drugs

Verification of the effect of cyclodextrin on reducing the absorption of radioactive iodine into the body	Shogo Higaki	The University of Tokyo	Kodai Nishi	Nagasaki University	Conti.
Phytochemical analysis of herbs for discovering radioprotectant	Katsuyoshi Matsunami	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Experimental studies on radiation and Curcumin analogues, GO-Y030, GO-Y022 and GO-Y078. Molecular mechanisms of radioresistance and radiosensitivity in human cancer cells.	Eiko Nakata	International University of Health and Welfare	Shinya Matsuura	Hiroshima University	Conti.
Development of Radioprotective Agents Targeting Inflammatory Platforms	Akinori Morita	Tokushima University	Megumi Sasatani	Hiroshima University	New

【Projects responding to Fukushima Nuclear Power Plant accident】

4.Research on risk communication regarding radiation disasters

Clarification of the influence of thyroid stimulating hormone on vascular repair	Yuji Shimizu	Osaka Institute of Public Health	Naomi Hayashida	Nagasaki University	New
Clarify the association between subclinical hypothyroidism and height loss	Nagisa Sasaki	Osaka Institute of Public Health	Naomi Hayashida	Nagasaki University	New
Survey of health effects and issues during and after emergency evacuation of vulnerable people in the Soso area after the Great East Japan Earthquake	Saori Nonaka	Minamisoma Municipal General Hospital	Masaharu Tsubokura	Fukushima Medical University	Conti.
Cohort Study on Long-term Group Living Conditions and Maintenance of Physical Ability of Affected Elderly People in Public Housing (Idobata Nagaya) in Soma Area after the 2011 Great Japan East Earthquake	Saito Hiroaki	Soma Central Hospital	Masaharu Tsubokura	Fukushima Medical University	Conti.

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Survey on Disaster-Related Deaths in the Soso area after the Fukushima Daiichi nuclear power plant accident	Toyoaki Sawano	Jyoban Hospital of Tokiwa Foundation	Masaharu Tsubokura	Fukushima Medical University	Conti.
Effectiveness of educational workshops including risk communication for Fukushima nuclear power plant workers	RYUJI OKAZAKI	University of Occupational and Environmental Health, Japan	Seiji Yasumura	Fukushima Medical University	Conti.
Research on the incidence and death of diseases and their distribution of evacuees and returnees after the Great East Japan Earthquake	SUN ZHICHAO	Fukushima Medical University	Tetsuya Ohira	Fukushima Medical University	Conti.
An analytical study on the tendency of information dissemination and acquisition about nuclear before and after a radiation disaster	Takeshi IIMOTO	The University of Tokyo	Hiroshi Yasuda	Hiroshima University	Conti.
Case studies of public health activities in evacuated areas and surrounding areas after the Fukushima Daiichi Nuclear Power Plant accident	Yoshitaka Nishikawa	Kyoto University	Seiji Yasumura	Fukushima Medical University	Conti.
Inhalation dose assessment of radon progeny in dwellings in Fukushima Prefecture	Hayato Kikuchi	Hirosaki University	Tetsuo ISHIKAWA	Fukushima Medical University	New
Evaluating the Understandability and Actionability of Nuclear Disaster Prevention Materials in Japanese	Shinya Ito	Kitasato University	Kayoko Ishii	Fukushima Medical University	New
Study of barriers to the prevention of suicidal risks in the territories affected by the disaster at the Chernobyl nuclear power plant	Tamara Sharshakova	Gomel State Medical University	Naomi Hayashida	Nagasaki University	New
Evaluation study of changes in physical, psychological, and social risk factors that influence health behavior	Takahiro Tabuchi	Tohoku University Graduate School of Medicine	Tetsuya Ohira	Fukushima Medical University	Conti.
Study for searching radioprotector/radiosensitizer using plasmid DNA damage as indicator	Katsunori Yogo	Nagoya University	Hiroshi Yasuda	Hiroshima University	Conti.
Monitoring and analyses of the behavior of the air dose rates at the forestry edge along the border of Fukushima and Miyagi prefectures aiming to utilize Phits as the risk communication tool	Shigeki HARADA	Fukushima University	Seiko Hirota	Hiroshima University	New

【Other important projects】

1. Research on the molecular mechanisms of genomic damage and repair

Analysis of the role of histone H2AZ ubiquitination in the maintenance of Genome	Hirota Kouji	Tokyo Metropolitan University	Satoshi Tashiro	Hiroshima University	Conti.
Analysis of ATM activation by delayed mitochondrial ROS	Genro Kashino	Nara Medical University	Keiji Suzuki	Nagasaki University	Conti.

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The analysis for the endoplasmic reticulum function altered by cellular stress	Kazunori Imaizumi	Hiroshima University	Akiko Nagamachi	Hiroshima University	Conti.
Analysis of DNA damage response molecular expression as a prognostic predictor of oropharyngeal cancer	Hideaki Nishi	Nagasaki University	Masahiro Nakashima	Nagasaki University	Conti.
Analysis of cellular function of polyubiquitinated PCNA	Yuji Masuda	Tokai National Higher Education and Research System, Nagoya University	Megumi Sasatani	Hiroshima University	Conti.
Histone H3K36 methyltransferase functions in DNA repair	Kiyoe URA	Chiba University	Satoshi Tashiro	Hiroshima University	Conti.
Detection of mutational signatures in the cancer tissue of Nagasaki atomic bomb survivors	Yuko Akazawa	Nagasaki University Graduate School of Biomedical Sciences	Masahiro Nakashima	Nagasaki University	Conti.
Elucidation of the role of Rif1 in DSB repair	Tomohiro Iguchi	Tokyo Metropolitan Institute of Medical Science	Osamu Kaminuma	Hiroshima University	Conti.
Regulation of chromatin structures involved in repair of UV-induced DNA damage	Kaoru Sugawara	Kobe University	Satoshi Tashiro	Hiroshima University	Conti.
Analysis of the Relationship between PFAS Sensitivity and DNA repair pathway	Toshiyuki Habu	Mukogawa Women's University	Megumi Sasatani	Hiroshima University	New
Role of NBS1 protein in cellular responses to ionizing radiation	Tauchi Hiroshi	Ibaraki University	Shinya Matsuura	Hiroshima University	Conti.
Time-lapse analysis of nuclear factors involved in DNA	Ken-ichi Yano	Kumamoto University	Keiji Suzuki	Nagasaki University	Conti.
Studies on Bleomycin-induced EBV-positive cancer selective cell death	Hisashi Iizasa	Shimane University	Shinya Matsuura	Hiroshima University	New
Role of DNA damage response in Metabolic dysfunction associated fatty liver disease	yuko akazawa	Nagasaki University Graduate School of Biomedical Sciences	Masahiro Nakashima	Nagasaki University	Conti.
Roles of epigenomic modification on DNA damage response under hypoxic conditions	Eisaburo Sueoka	Saga University	Keiji Tanimoto	Hiroshima University	Conti.
Mechanism by which splicing factors promote repair of radiation-induced DNA double-strand breaks	Motohiro Yamauchi	Kyushu University	Keiji Suzuki	Nagasaki University	Conti.

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Effects of phase separation of DNA double-strand break repair factors on the frequency of chromosome rearrangement	Kie Ozaki	Kyushu University	Yu Abe	Nagasaki University	Conti.
Roles of the hypoxia-inducible factor- $\alpha$ in radiation sensitivity	Yuichi Makino	Asahikawa Medical University	Keiji Tanimoto	Hiroshima University	Conti.
Mechanisms of DNA damage responses in hypoxic cancer cells	Hidetaka Eguchi	Juntendo University	Keiji Tanimoto	Hiroshima University	Conti.
Transcriptome analyses of radiation responses in hypoxia by using public database	Hiromasa Ono	Research Organization of Information and Systems	Keiji Tanimoto	Hiroshima University	Conti.
Molecular mechanisms of DNA damage repair in the pathogenesis of cardiovascular diseases	Mari Ishida	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Elucidation of the mechanism underlying DSB repair pathway choice after ionizing radiation	Atsushi Shibata	Keio University Faculty of Pharmacy	Keiji Suzuki	Nagasaki University	New
Analysis of DNA double strand break repair in the presence of inflammatory cytokines.	Mayu Isono	Keio University	Keiji Suzuki	Nagasaki University	New
Role of XRCC3 polymorphism in pathogenesis and progression of cardiac hypertrophy	Chiemi Sakai	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
The involvement of dimethylation of histone H3K36 induced by DDR in the development and progression of human liver disease	Yasuaki Shibata	Nagasaki University Graduate School of Biomedical Sciences	Masahiro Nakashima	Nagasaki University	New
Analysis of the role of non-canonical translation initiation factors in radiation-induced DNA damage restration	Kakuta Shigeru	The University of Tokyo	Osamu Kaminuma	Hiroshima University	Conti.
Interaction between nuclear DNA damage and mitochondrial DNA damage	Mari Ishida	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Mechanism of generation of dicentric chromosomes in irradiated Ligase4 deficient mouse fibroblasts.	Shiraishi Kazunori	OSAKA Metropolitan University	Megumi Sasatani	Hiroshima University	New
Analysis of the molecular mechanism of the genomic instability in carcinogenesis	Tomoko Ishikawa-Fujiwara	Osaka University	Megumi Sasatani	Hiroshima University	Conti.
Novel responsible genes of diseases with genomic instability around the Chernobyl area	Tomoo Ogi	Tokai National Higher Education and Research System	Norisato Mitsutake	Nagasaki University	Conti.
Disruption mechanism of DSB-dependent chromatin regulation in response to decreased UBE3B expression	Maiko Okada	Tokyo University of Technology	Keiji Suzuki	Nagasaki University	Conti.

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Analysis of the mechanisms involved in radiosensitivity of malignant glioma cells	Seiji Hama	Hiroshima University	Shinya Matsuura	Hiroshima University	Conti.
Hypoxia signal and DNA damage response in aging	Bhawal Ujjal	Nihon University	Keiji Tanimoto	Hiroshima University	New
Effects of radiation on development and aging in zebrafish	Hiromi Hirata	Aoyama Gakuin University	Yasuko Honjo	Hiroshima University	Conti.
Analysis of genomic instability in breast cancer carcinogenesis by 53BP1 expression	Ryota Otsubo	Nagasaki University Hospital	Katsuya Matsuda	Nagasaki University	Conti.
The role of TIP60 histone acetyltransferase complex in radiation-induced DNA damage response	Tsuyoshi Ikura	Kyoto University	Satoshi Tashiro	Hiroshima University	Conti.
Analysis of cellular strategy of autophagy-dependent cancer cell growth	Kanji FURUYA	Kyoto University	Yasuko Honjo	Hiroshima University	Conti.
Molecular pathologic characteristics of benign thyroid nodules showing nodule in nodule morphology	Mayu Ueda	Nagasaki University	Katsuya Matsuda	Nagasaki University	Conti.

【Other important projects】

2. Research on mechanisms of radiation carcinogenesis and development of cancer treatment

The effect of low-dose irradiation on the functions of tumor-associated macrophages	Shotaro Nakajima	Fukushima Medical University	Osamu Kaminuma	Hiroshima University	Conti.
Genomic and epigenomic analysis of hematological malignancies	Hiroataka Matsui	National Cancer Center Hospital	Akiko Nagamachi	Hiroshima University	Conti.
Radiation exposure and the resulting risk of genomic destabilization	Yoshioka, Ken-ichi	National Cancer Center Research Institute	Satoshi Tashiro	Hiroshima University	Conti.
Novel therapeutic approaches targeting L-type amino acid transporters for radiation - induced cancer treatment	Keitaro Hayashi	Dokkyo Medical University	Osamu Kaminuma	Hiroshima University	Conti.
Signature analysis of ionizing radiation-induced somatic mutations in hematopoietic stem cells	Yukiko Matsuda	Radiation Effects Research Foundation	Megumi Sasatani	Hiroshima University	New
Development of estimation protocol for radiosensitivity of individual using iPS cells and Raman spectroscopy	Horie Masanobu	Kyoto University	Hideaki Fujita	Hiroshima University	Conti.

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Effects of oxidative stress response on ionizing radiation-induced murine leukemogenesis	Osamu Tanabe	Radiation Effects Research Foundation	Satoshi Tashiro	Hiroshima University	New
Elucidation of molecular mechanism of ATM-activation by metformin	Tomoyuki Hamamoto	Showa Pharmaceutical University	Keiji Suzuki	Nagasaki University	Conti.
Genomic mutation analysis of radiation-induced mouse hepatocellular carcinoma	Yi SHANG	Quantum Life and Medical Science Directorate, National Institutes for Quantum Science and Technology	Keiji Suzuki	Nagasaki University	Conti.
Histopathological analysis in the carcinogenic processes on radiation-induced intestinal tumor	Morioka Takamitsu	National Institutes for Quantum Science and Technology	Megumi Sasatani	Hiroshima University	Conti.
Cellular kinetics of hematopoietic stem cell with Sfp1 gene deletion in bone marrow and spleen of X-irradiated mice	Mitsuaki Ojima	Oita University of Nursing and Health Sciences	Keiji Suzuki	Nagasaki University	Conti.
Etiology-specific roles of four genetic loci conferring risk for radiation-related and sporadic thyroid cancer in pediatric and adult patients from Belarus	Tatsiana Leonava	Minsk City Clinical Oncological Center	Vladimir Saenko	Nagasaki University	Conti.
Elucidation of the mechanism of radiation-induced hepatocarcinogenesis	Morioka Takamitsu	National Institutes for Quantum Science and Technology	Keiji Suzuki	Nagasaki University	Conti.
Identification of radiation-associated signaling pathways based on the quantification of radiation stress responses in cultured cells	Masataka Taga	Radiation Effects Research Foundation	Megumi Sasatani	Hiroshima University	New
Molecular mechanisms of radio-resistance in thyroid cancers	Aya Tanaka	Nagasaki University	Norisato Mitsutake	Nagasaki University	Conti.
Carcinogenic mechanism of B-cell lymphoma/leukemia by radiation exposure	Hirota Tachibana	Central Research Institute of Electric Power Industry	Megumi Sasatani	Hiroshima University	Conti.
Development of an anticancer drug screening method targeting error-prone repair pathways activated in cancer cells after irradiation	Kohzaki Masaoki	University of Occupational and Environmental Health, Japan	Keiji Suzuki	Nagasaki University	Conti.
Study on the effect of irradiation on the structure and functions of laminin molecule in basement membrane	Koshikawa Naohiko	Tokyo Institute of Technology	Osamu Kaminuma	Hiroshima University	Conti.
Preliminary study for genome analysis using preserved blood specimens from atomic bomb survivors	Tomonori Hayashi	Radiation Effects Research Foundation	Shinya Matsuura	Hiroshima University	Conti.
Genomic and epigenomic analysis for risk assessment of low-dose and low-dose-rate radiation carcinogenesis	Chizuru Tsuruoka	National Institutes for Quantum Science and Technology	Megumi Sasatani	Hiroshima University	New



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Analysis of the malignant transformation mechanism of highly metastatic cells derived from a metastasis model of small cell lung cancer.	Shuichi Sakamoto	Microbial Chemistry Research Foundation	Megumi Sasatani	Hiroshima University	Conti.
Mathematical model for understanding of the early onset hypothesis and the accumulated transition carcinogenesis.	Isao Kawaguchi	National Institutes for Quantum Science and Technology	Yoshinaga Shinji	Hiroshima University	New
Mechanisms of radiation carcinogenic susceptibility, explored from changes in the tissue microenvironment	Masaaki Sunaoshi	National Institutes for Quantum Science and Technology	Keiji Suzuki	Nagasaki University	Conti.
Long-term control of glioma stem cell population recurrence by radiation and splicing inhibition	MICHIYA SUGIMORI	University of Toyama	Norisato Mitsutake	Nagasaki University	New
Molecular patterns and clinical implications of KRAS, NRAS, BRAF and TERT promoter mutations in colorectal cancer from patients who lived in contaminated by radionuclides and non-contaminated areas of the Republic of Kazakhstan	Saule Rakhimova	Center for Life Sciences, PI National Laboratory Astana, AOE Nazarbayev University	Vladimir Saenko	Nagasaki University	New
Analysis of myelodysplastic syndromes/myeloproliferative disorders in atomic bomb survivors	Daisuke Imanishi	Nagasaki Goto Chuoh Hospital	Yasushi Miyazaki	Nagasaki University	Conti.
Analysis of immune-associated gene expression following ionizing radiation in human tumor organoids	Ken Okuda	Keio University Graduate School of Pharmaceutical Sciences	Keiji Suzuki	Nagasaki University	New
Analysis of immune-associated gene expression after ionizing radiation	Shunji Haruna	Keio University Graduate School of Pharmaceutical Sciences	Keiji Suzuki	Nagasaki University	New
Research on mechanisms of radiation carcinogenesis and development of cancer treatment	Yong Chai	Jiangxi Provincial Children's Hospital	Tao-Sheng Li	Nagasaki University	New
Development of 90Y-labeled internal radiation therapy agents -Meolecular design for elucidation of radiation damages and decrease in radiation dose	Fuchigami Takeshi	Kanazawa University	Kodai Nishi	Nagasaki University	Conti.
Study on macrophage mediated radioresistance in cancer cells	Nakata Yuichiro	Graduate school of Medicine, Chiba University	Osamu Kaminuma	Hiroshima University	New
Examination for the enhanced effect of tumor suppression on senesced pancreatic cancer cells by combination of anti-cancer and targeted drugs	Nishimoto Arata	Sanyo-Onoda City University	Tao-Sheng Li	Nagasaki University	New
Mechanisms of cancer immune surveillance in Radiation Carcinogenesis	Yun Guo	Hiroshima University	Megumi Sasatani	Hiroshima University	Conti.
Comprehensive understanding of host immune surveillance to develop innovative cancer therapies	Yasuda Tomoharu	Hiroshima University	Osamu Kaminuma	Hiroshima University	New

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Expression of p16INK4A as a predictor of survival in patients with poorly differentiated thyroid carcinoma	Mikhail Frydman	Minsk City Clinical Oncological Center	Vladimir Saenko	Nagasaki University	Conti.
Gene mutation analysis study in basal cell carcinoma	Kazumitsu Sugiura	Fujita Health University	Osamu Kaminuma	Hiroshima University	Conti.
Study of ultraviolet (U.V.) exposed induced senescence in HCE-T cells	Wang Duo	University of Occupational and Environmental Health, Japan	Keiji Suzuki	Nagasaki University	Conti.

【Other important projects】

3. Basic research on development of medical care for radiation disasters

Influence of type of anthropomorphic phantom on the calibration of whole-body counter	Yuki Tamakuma	Nagasaki University	Sumi Yokoyama	Nagasaki University	New
Analyses of mechanisms underlying lung fibrosis, and search for target molecules for drug development	Takeshi Nabe	Setsunan University	Osamu Kaminuma	Hiroshima University	Conti.
Dose estimation for cattle affected by the nuclear accident using nondestructive electron spin resonance	YAMAGUCHI Ichiro	National Institute of Public Health	Hiroshi Yasuda	Hiroshima University	Conti.
Mouse model study of clonal hematopoiesis and cardiovascular disease	Yoichiro Kusunoki	Radiation Effects Research Foundation	Megumi Sasatani	Hiroshima University	Conti.
Analysis of the pathophysiology for periodontal disease, a risk factor for radiation-induced jaw osteonecrosis	TANAKA YOSHIHIKO	Fukuoka Dental College	Osamu Kaminuma	Hiroshima University	Conti.
Establishment of a tailor-made exposure control evaluation method based on individual assessment of radiation sensitivity	RYUJI OKAZAKI	University of Occupational and Environmental Health, Japan	Keiji Suzuki	Nagasaki University	New
Analysis of stress responsive substances induced by cerebral ischemia	Sakai Norio	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Nail dosimetry using EPR (Electron Paramagnetic Resonance)	Minoru Miyake	Kagawa University	Hiroshi Yasuda	Hiroshima University	New

【Other important projects】

4. Basic research on regenerative medicine approaches to improve radiation treatment

Regenerative medicine in cardiovascular diseases	Kajikawa Masato	Hiroshima University Hospital	Yukihito Higashi	Hiroshima University	Conti.
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Elucidating the role of T cell repertoire variation in disease pathogenesis	Inoue Kimiko	Bioresource Research Center, RIKEN	Osamu Kaminuma	Hiroshima University	Conti.
Analysis of the function of cardiac muscle cells	Chikara Goto	Hiroshima International University	Yukihito Higashi	Hiroshima University	Conti.
Analysis of inflammatory responses induced by necrotic cells	Kisaburo NAGATA	Toho University	Osamu Kaminuma	Hiroshima University	Conti.
Reprogramming of human bone marrow-derived mesenchymal stem cells and treatment of radiation damage to normal tissues	Yoshio Hosoi	Tohoku University	Shinya Matsuura	Hiroshima University	Conti.
Basic research on regenerative medicine approaches to improve radiation treatment	Shouhua Zhang	Jiangxi Provincial Children's Hospital	Tao-Sheng Li	Nagasaki University	New
Investigation of the preventive effect of radiation pneumonitis by staniocalcin-1	Masahiko Kanehira	Yamanashi University	Osamu Kaminuma	Hiroshima University	New
Research on the function and mechanism of cardiomyocyte physiology	Masafumi Takahashi	Jichi Medical University	Yukihito Higashi	Hiroshima University	Conti.
Musculoskeletal Regenerative Therapy with MSC-derived Exosomes	NOBUO ADACHI	Hiroshima University	Yukihito Higashi	Hiroshima University	Conti.
Investigation of the effects of mesenchymal stem cells on radiation-induced cardiovascular lesions	Takahiro Harada	Hiroshima University	Yukihito Higashi	Hiroshima University	Conti.

【Other important projects】

5. Evaluative research on health effects and health risks associated with radiation disasters

Association of radiation exposure with atherosclerosis and cardiovascular disease among atomic bomb survivors	Nobuo Sasaki	Hiroshima Atomic Bomb Casualty Council	Yukihito Higashi	Hiroshima University	Conti.
Clonal hematopoiesis-related somatic mutation analyses in Hiroshima atomic-bomb survivors	Kengo Yoshida	Radiation Effects Research Foundation	Yasushi Miyazaki	Nagasaki University	Conti.
Association between parity status and after great disaster psychological stress tolerance	Yasukawa Sumiyo	Faculty of Health Sciences, Okayama University Institute of Academic and Research	Tetsuya Ohira	Fukushima Medical University	Conti.
Relationship between dietary patterns after radiation disasters and future mental distress: Fukushima Prefectural Health Survey	Junko Yoshida	Fukuyama University	Tetsuya Ohira	Fukushima Medical University	Conti.

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Effects of Radiation Exposure on Kidney	Nishiyama Akira	Kagawa University	Yukihito Higashi	Hiroshima University	Conti.
Association between Laughter and Lifestyle Diseases after the Great East Japan Earthquake	Eri Eguchi	Fukushima Medical University	Tetsuya Ohira	Fukushima Medical University	Conti.
Methodology for evaluating surface collection efficiency of filters used for ambient radioactive aerosols	Manaya Taoka	Hirosaki University	Tetsuo ISHIKAWA	Fukushima Medical University	New
The effects of post-disaster lifestyle changes on the results of health checkups among children and adolescents	Yamagishi Kazumasa	Juntendo University Graduate School of Medicine	Tetsuya Ohira	Fukushima Medical University	Conti.
Role of short-chain fatty acids in intestinal immune system	Chiharu Nishiyama	Tokyo University of Science	Osamu Kaminuma	Hiroshima University	Conti.
Long-term trend of the subjective health: the Fukushima health management survey	Nagai Masato	Iwate Medical University	Tetsuya Ohira	Fukushima Medical University	Conti.
The impact of a disaster on smoking behavior after the Great East Japan Earthquake	Risa Murakami	Kobe University Graduate School of Health Sciences	Tetsuya Ohira	Fukushima Medical University	Conti.
Improvement of the empirical formula for radon exhalation rate from soil surface in creating a lung cancer risk potential map due to radon inhalation	Rui Kudo	Hirosaki University	Tetsuo ISHIKAWA	Fukushima Medical University	New
An interview survey to search for the causes of decreased access to cancer care after the 2011 Fukushima triple disaster	Akihiko Ozaki	Jyoban Hospital of Tokiwa Foundation	Masaharu Tsubokura	Fukushima Medical University	Conti.
Association of PTSD symptoms, mental distress, and CVD among residents in the evacuation area of Fukushima after the Great East Japan Earthquake	Kazuhide Tezuka	Sakamoto Mental Health Center	Tetsuya Ohira	Fukushima Medical University	Conti.
The incidence of diabetes on the association with psychological distress in the cohort of evacuee after the Great East Japan Earthquake in Fukushima, Japan: A 10-year follow-up of the Fukushima Health Management Survey	Ryo KAWASAKI	Graduate School of Medicine, Osaka University	Seiji Yasumura	Fukushima Medical University	Conti.
Radon Dynamics in Outdoor Environment - Study on Influence Factors on Radon Exhalation Rate from Soil and Accumulation Chamber Technique	Qianhao JIN	Graduate School of Frontier Sciences, The University of Tokyo	Tetsuo Ishikawa	Fukushima Medical University	New
Difference in Mortality Trends among the elderly by whether they evacuated after the Great East Japan Earthquake	Yuta Inoue	Osaka University	Seiji Yasumura	Fukushima Medical University	Conti.
Association between sleep state and mental health state among elementary school children	Takeshi Tanigawa	Juntendo University Graduate School of Medicine	Tetsuya Ohira	Fukushima Medical University	Conti.

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Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New. · Conti.
Analysis of the effects of Pb-210 and Po-210 ingested through food on the incidence of human cancer	Cai Yu	The University of Tokyo	Yoshinaga Shinji	Hiroshima University	Conti

【Other important projects】

6.Application of radioisotopes to medical diagnosis and treatment

Development of novel radiotheranostics methods targeting tumor hypoxia	Yoichi Shimizu	Kyoto University	ZHAO Songji	Fukushima Medical University	Conti.
Development of probes for radiotheranostics containing alpha emitter radionuclides	Kazuma Ogawa	Kanazawa University	Kazuhiro Takahashi	Fukushima Medical University	Conti.
Development of a new therapeutic strategy for aspergillosis using radioisotopes	Masato Tashiro	Nagasaki University Graduate School of Biomedical Sciences	Kodai Nishi	Nagasaki University	Conti.
Research on fundamental science and radiochemical characteristics of astatine	Ichiro Nishinaka	National Institutes for Quantum Science and Technology	Kohshin Washiyama	Fukushima Medical University	Conti.
Study on PET image quality improvement by PET scanner	Yasuyuki Takahashi	Hirosaki University	Noboru Oriuchi	Fukushima Medical University	Conti.
Study on the molecular mechanism of targeted alpha therapy: intercellular communication through extracellular nucleotide	Yasuhiro Ohshima	National Institutes for Quantum Science and Technology	Naoyuki Ukon	Fukushima Medical University	Conti.
Attempts to treat medical radioactive wasteliquid without relying on drainage equipment	Masahiro HIROTA	Shinshu university	Kodai Nishi	Nagasaki University	New
Development of <sup>211</sup> At radiolabeling reaction via aryl boronic acid or ester precursor and its application to radio-theranostics probes	Hiroyuki Kimura	Kanazawa University	Kazuhiro Takahashi	Fukushima Medical University	Conti.
Development of a targeted theranostics platform using <sup>211</sup> At	Hiroyuki Nakamura	Tokyo Institute of Technology	Kohshin Washiyama	Fukushima Medical University	Conti.
Development of nuclear medicine imaging for drug-resistant bacterial infection	Masato Kobayashi	Kanazawa University	Kodai Nishi	Nagasaki University	Conti.
Development of radiotheranostic probes using cancer-specific metabolic mechanisms	Masato Kobayashi	Kanazawa University	Kohshin Washiyama	Fukushima Medical University	New
Elucidating the pathogenesis of hematological malignancy via DNA damage and oxidative stress and development of novel therapy	Hiroki Goto	Kumamoto University	Koki Hasegawa	Fukushima Medical University	New

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Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New・Conti.
Evaluation of radiopharmaceutical accumulation in Streptococcus pyogenes in imaging of bacterial infections.	Asuka Mizutani	Kanazawa University	Kodai Nishi	Nagasaki University	New
Validation of dosimetry analysis using scintigraphy and correlation with renal toxicity of Lu-177-DOTATATE therapy in neuroendocrine neoplasm	Kosuke Yamashita	Kumamoto University	Kenta Miwa	Fukushima Medical University	Conti.
Establish of analysys method in the original phantom for tau PET imaging	Kei Wagatsuma	Kitasato University	Kenta Miwa	Fukushima Medical University	Conti.
Phantom development for 18F-labelled myocardial perfusion imaging tracer	Koichi Okuda	Hirosaki University Graduate School of Health Sciences	Naoyuki Ukon	Fukushima Medical University	New

【Other important projects】

7. Medical radiation research

Development of treatment to overcome radioresistance and inhibit radiation pneumonitis in non-small cell lung cancer	Noboru Hattori	Hiroshima University Graduate School of Biomedical and Health Sciences	Yoshihiro Miyata	Hiroshima University	New
Protective effect of p53 regulators against intestinal damage after multiple-dose irradiation	Yuichi Nishiyama	Tokushima University	Megumi Sasatani	Hiroshima University	Conti.
Development of novel radiosensitizing therapy for malignant brain tumors using photosensitizer precursor; 5-aminolevulinic acid	Mishima Kazuhiko	Saitama Medical University	Osamu Kaminuma	Hiroshima University	Conti.
Relationship between radiation information and communication style needed by medical professional students	Mitsuyo Itou	Shizuoka College of Medical Science	Sumi Yokoyama	Nagasaki University	New
Evaluation of the Effectiveness of Radiation Protective Gloves in Reducing Orthopedic Surgeons' Hand Exposure	Keisuke Nagamoto	University of Occupational and Environmental Health, Japan	Satoshi Tashiro	Hiroshima University	New
Research on the mechanism of radiation-induced taste disorders	Masaru Konishi	Hiroshima University Hospital	Shinya Matsuura	Hiroshima University	Conti.
Assessment of DNA damage repair responses after heavy-ion radiation exposure	Asako J. Nakamura	Ibaraki University	Keiji Suzuki	Nagasaki University	Conti.
Study on the Optimization of Dose and Image Quality in Simple Radiography Due to Differences in Radiation Quality	Yoshiaki Hirofuji	Fukushima Medical University	Takashi Ooba	Fukushima Medical University	New
Effects of phytoestrogens on radiation response in hypoxic cancer cells	Takako Sakamoto	Jichi Medical University	Keiji Tanimoto	Hiroshima University	Conti.

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Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New・Conti.
Radiation effect of lymphatic epithelial cells	Ogawa, Keiko	Hiroshima University Hospital	Yukihito Higashi	Hiroshima University	New

【Open-topic projects】

Investigation of the pathophysiology for hereditary neurological diseases	Masahiro Nakamori	Hiroshima University	Kodai Kume	Hiroshima University	Conti.
Neural basis of adaptive behaviors coping stress	Hidenori Aizawa	Hiroshima University	Hideshi Kawakami	Hiroshima University	New
Analysis of the interaction between BMP/Smad and TNF $\alpha$ -induced inflammatory signals.	Hirata Tsuchiya Shizu	Hiroshima University	Akiko Nagamachi	Hiroshima University	Conti.
Validation of the association between radiological morphology and proteasome expression in renal cell carcinoma	Kohei Kobatake	Hiroshima University	Osamu Kaminuma	Hiroshima University	Conti.
Search for novel therapeutic targets for knee osteoarthritis	Morioka Norimitsu	Hiroshima University, Graduate School of Biomedical and Health Sciences	Keiji Tanimoto	Hiroshima University	Conti.
Research into the application of Tscm cells for the treatment of hepatitis	Hiromi Abe-Chayama	Hiroshima University	Tatsuo Ichinohe	Hiroshima University	Conti.
Investigation of treatment effects of adipose-derived mesenchymal stem cells for psoriasis	Ryohei Ogino	Hiroshima University	Keiji Tanimoto	Hiroshima University	Conti.
Mechanism of novel compounds breaking the resistance of Pseudomonas aeruginosa to antimicrobial agents and effective use of existing antimicrobial agents	HIDEKI FUJII	Keio University	Osamu Kaminuma	Hiroshima University	New
Elucidation of the mechanism of immune response regulation by exercise	Daisuke Shiiba	Kurashiki University of Science and the Arts	Keiji Tanimoto	Hiroshima University	Conti.
Study on the mechanism of zygotic genome activation using early rat embryos	Kohtaro Morita	Kyoto University	Kento Miura	Hiroshima University	Conti.
Analysis of the role of innate lymphoid cell in pulmonary arterial hypertension	Susumu Nakae	Hiroshima University	Tatsuo Ichinohe	Hiroshima University	Conti.
Development of genome-editing technology useful for creating mouse models to analyze the effects of radiation	Aoto Kazushi	Hiroshima university	Osamu Kaminuma	Hiroshima University	New

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Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New · Conti.
Effect of antibiotic and hormonal therapy on intrauterine microbial colonization in endometriosis	Khaleque Khan	Kyoto Prefectural University of Medicine	Masahiro Nakashima	Nagasaki University	Conti.
Whole genome sequencing of amphibians having undergone remarkable adaptive evolution	Takeshi Igawa	Hiroshima University	Hideshi Kawakami	Hiroshima University	Conti.
Exploring the regulatory function of protein droplets formed through liquid-liquid phase separation (LLPS) in cells	Shin-ichi Tate	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Functional analysis of primary cilia using knockout cells	Koji Ikegami	Hiroshima University	Hideshi Kawakami	Hiroshima University	Conti.
Neuroprotective effects of ROCK inhibitors on retinal ganglion cells	Ayaka Edo	Hiroshima University Graduate School of Biomedical and Health Sciences	Satoshi Tashiro	Hiroshima University	Conti.
Evaluation about a novel diagnostic kit-product and automatic immunochromatography-reader for detection of lymph node metastases in breast cancer applying the semi-dry dot-blot method.	RYOTA OTSUBO	Nagasaki University Hospital	Masahiro Nakashima	Nagasaki University	Conti.
Exploration of genetic causes of biparental placental mesenchymal dysplasia	Hidenobu Soejima	Saga University	Koichiro Yoshiura	Nagasaki University	New
Analysis of Staphylococcus aureus derived from atopic dermatitis and innate immunity	msasaya moriwaki	Hiroshima University	Osamu Kaminuma	Hiroshima University	Conti.
Elucidation of the mechanisms of environmental chemical toxicity and disease pathogenesis focusing on morphological and functional changes in organelles	Masatsugu Miyara	Hiroshima University	Nariaki Fujimoto	Hiroshima University	New
Prolyl isomerase are committed to the onset of both cancer and metabolic syndromes	Nakatsu Yusuke	Hiroshima university	Akiko Nagamachi	Hiroshima University	Conti.
Analysis of genes involved in the development of neuroblastoma	Kanda Akifumi	Hiroshima University	Keiji Tanimoto	Hiroshima University	New
Elucidation of intramyocardial calcium dynamics in A kinase anchor protein mutants	Yukiko Nakano	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Understanding the mechanism of cancer cachexia and the development of a comprehensive therapeutic exercise program	Mitsunori Miyazaki	Hiroshima University	Keiji Tanimoto	Hiroshima University	Conti.
Functional analysis of calsequestrin mutant protein	Yuko Noda	Hiroshima University	Yukihito Higashi	Hiroshima University	New



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Joint Research Title	Joint Researcher (Representative)	Affiliated Organization	Resident Researcher (Representative)	Affiliated Organization	New. · Conti.
Elucidation of epigenetic regulation for brown fat development	Haruya Ohno	Hiroshima University	Tatsuya Maruhashi	Hiroshima University	Conti.
Unveiling the treatment resistance of pediatric solid tumor by using circulating tumor cells	Masato Kojima	Hiroshima University	Keiji Tanimoto	Hiroshima University	New
Kinetic analysis of LAT1 expression and mTOR activation in ovarian cancer	Kosuke Nakamoto	Hiroshima University	Hideshi Kawakami	Hiroshima University	Conti.
Analysis of transplantation and tumor antigen-specific immune response	Hideki Ohdan	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
Lung diaphragm protection strategy via modulation of spontaneous respiratory effort with partial neuromuscular blockade in ARDS	Tatsutoshi Shimatani	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
inducible gene expression system	Teruhisa Fujii	Hiroshima University	Satoshi Tashiro	Hiroshima University	Conti.
The analysis of cancer genome and circulation tumor DNA for gastrointestinal cancer	Yuji Urabe	Hiroshima University	Akiko Nagamachi	Hiroshima University	Conti.
The evaluation of materials to avoid the spread of volatile radionuclides such as At-211, an alpha particle emitter	Anri Inaki	National Cancer Center	Kohshin Washiyama	Fukushima Medical University	New
Functional screening of metabolites produced by plant derived lactic acid bacteria	Sugiyama Masanori	Hiroshima University	Keiji Tanimoto	Hiroshima University	Conti.
Immunomodulatory Properties of Mesenchymal Stromal Cells Incorporated in Collagen Hydrogel	Koichi Kato	Hiroshima University	Tatsuo Ichinohe	Hiroshima University	Conti.
Create animal models that can capture the hair cycle with high accuracy	Shoichiro Kokabu	Kyushu Dental University	Osamu Kaminuma	Hiroshima University	New
Establishment of bone density evaluation method using a novel bone cutting drill	Reiko Kobatake	Hiroshima University	Tatsuo Ichinohe	Hiroshima University	New
influences of dam exercise on metabolism in offspring	Fujita Naoto	Hiroshima University	Keiji Tanimoto	Hiroshima University	New