

1) Published and in-press reports (2019 - Current):

<2021 - Current>

Hayashi T, Furukawa K, Morishita Y, Hayashi I, Kato N, Yoshida K, Kusunoki Y, Kyoizumi S, Ohishi W. Intracellular reactive oxygen species level in blood cells of atomic bomb survivors is increased due to aging and radiation exposure. *Free Radical Biol Med* 2021; 171:126-34.

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Nakamura N. Re-examining the role of tissue inflammation in radiation carcinogenesis: A hypothesis to explain an earlier onset of cancer. *Int J Radiat Biol* 2021; 97(10):1341-51.

Noda A, Kato K, Tamura C, Biesecker LG, Imaizumi M, Inoue Y, Henderson GE, Wilfond B, Muto K, Naito M, Kayukawa J. Ethical, legal and social implications of human genome studies in radiation research: a workshop report for studies on atomic bomb survivors at the Radiation Effects Research Foundation. *J Radiat Res (Tokyo)* 2021; 62(4):656-61.

Yoshida K, Misumi M, Kusunoki Y, Yamada M. Longitudinal changes in red blood cell distribution width decades after radiation exposure in atomic-bomb survivors. *Br J Haematol* 2021; 193(2):406-9.

Nakamura N. Bridging radiation epidemiology and radiation biology. *Hoshasen Seibutsu Kenkyu [Radiat Biol Res Commun]* 2021; 56(1):86-102. (in Japanese)

Nakamura N. Chernobyl accident and genome study: A brief review. *JART [J Japan Association of Radiological Technologists]* 2021; 68(827):47-9. (in Japanese)

Nakamura N. Radiation-induced DNA damage, repair and chromosome aberration. *JART [J Japan Association Radiological Technologists]* 2021; 68(827):50-2. (in Japanese)

Nakamura N. Radiation-induced cell death and mutagenesis. *JART [J Japan Association of*

Radiological Technologists] 2021; 68(828):66-8. (in Japanese)

Nakamura N. Cancer 1 (Risk, Animal experiments, Epidemiology). JART [J Japan Association of Radiological Technologists] 2022; 69(831):96-9. (in Japanese)

Satoh Y, Uchimura A. Analysis of transgenerational effects of radiation exposure using whole genome sequencing. Isotope News [Japan Radioisotope Association] 2021;773:44-6. (in Japanese)

Uchimura A. Radiation and genetics – Exposure and Health. Encyclopedia of Genetics, 2021; 16-7. (in Japanese)

<In Press>

Cologne J, Sugiyama H, Hamasaki K, Tatsukawa Y, French B, Sakata R, Misumi M. Chromosome aberrations among Atomic-bomb survivors exposed in utero: Updated analysis accounting for revised radiation doses and smoking. Radiat Environ Biophys

Noda A. RERF future genome studies on atomic bomb survivors and their children. Hiroshima Igaku [J Hiroshima Med Assoc] (in Japanese)

<Submitted>

Farne KK, Tsuruyama T. Signal transduction rate conservation in EGFR signaling based on information thermodynamics.

Gon Y, Yoshifuji H, Kandou T, Tsuruyama T, Kitagori K, Murakami K, Nakashima R, Akizuki S, Morinobu A, Hikida M, Mimori T. Human IgG4 knock-in MRL/lpr mice increased the number of CD3+B220+CD138+ T cells and exacerbated inflammatory pathophysiology.

Hiratsuka T, Ito S, Yamamoto T, Yoshizawa A, Toyokuni S, Tsuruyama T. FFPE proteomics and RhoA and Vigilin immunohistochemistry of malignant mesothelioma.

Nakamura N. Mechanisms of radiation carcinogenesis: What is really induced?

Pugh JL, Coplen CP, Sukhina AS, Uhrlaub JL, Padilla-Torres J, Hayashi T, Nikolich-Zugich J. Lifelong cytomegalovirus and early-life irradiation synergistically potentiate age-related defects in response to vaccination and infection.

Sasatani M, Xi Y, Kajimura J, Piao J, Masuda Y, Honda H, Karamfilova Zaharieva EK, Hamasaki K, Kusunoki Y, Shimura T, Shizuko Kakinuma S, Shimada Y, Sotomaru Y, Kamiya K. Rev1 overexpression increases the incidence and shortens the latency period of N-methylN-nitrosourea (MNU)-induced thymic lymphoma via acceleration of mutagenesis.

Tsuruyama T. RNA transcription system converts the template DNA genetic information into RNA polymerase translocation work.

Tsuruyama T. Queuing network theory for cell signal cascade analysis.

Tsuruyama T. Signal transduction cascade model predicting conservation of entropy production rate on stochastic thermodynamics.

Uchimura A, Matsumoto H, Satoh Y, Minakuchi Y, Wakayama S, Wakayama T, Higuchi M, Hashimoto M, Fukumura R, Toyoda A, Gondo Y, Yagi T. Early embryonic mutations reveal dynamics of somatic and germ cell lineages in mice.

Uemoto Y, Taura K, Nakamura D, Xuefeng L, Nam NH, Kimura Y, Yoshino K, Fuji H, Yoh T, Nishio T, Yamamoto G, Koyama Y, Seo S, Tsuruyama T, Iwaisako K, Uemoto S, Tabata Y, Hatano E. Extrahepatic bile duct regeneration with an artificial bile duct made of gelatin hydrogel non-woven fabrics.

Nakamura N. Cancer 2 (Mechanism of radiation inflammation). (in Japanese)

Nakamura N. Radiation and heredity: The Basics of genetics (Part 1). (in Japanese)

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Applegate KE, Ruhm W, Wojcik A, et al. (RERF: Brenner AV, Hamasaki K, Imaizumi M, Ozasa K, Sadakane A, Sakata R, Yoshida K) Individual response of humans to ionizing radiation: Governing factors and importance for radiological protection Radiat Environ Biophys 2020; 59(2):185-209

Ueda K, Ohishi W, Cullings HM, Fujiwara S, Suzuki G, Hayashi T, Mitsui F, Hida A, Ozasa K, Ito M, Chayama K, Tahara E. Modifying effect of chronic atrophic gastritis on radiation risk for noncardia gastric cancer according to histological type. *Radiat Res* 2020;194(2):180-7

Aziz F, Hisatsune J, Yu L, Kajimura J, Sato'o Y, Ono HK, Masuda K, Yamaoka M, Salasia SIO, Nakane A, Ohge H, Kusunoki Y, Sugai M. *Staphylococcus aureus* isolated from skin from atopic-dermatitis patients produces staphylococcal enterotoxin Y, which predominantly induces T-cell receptor V α -specific expansion of T cells. *Infect Immun* 2020; 88(2):e00360-19

Nakamura N. A hypothesis: Radiation carcinogenesis may result from tissue injuries and subsequent recovery processes which can act as tumor promoters and lead to an earlier onset of cancer. *Br J Radiol*, 2020; 93(1115):20190843

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Takahashi N, Misumi M, Niwa Y, Murakami H, Ohishi W, Inaba T, Nagamachi A, Tanaka S, Tanaka I, Suzuki G. Effects of radiation on blood pressure and body weight in the spontaneously hypertensive rat model. Are radiation effects on blood pressure affected by genetic background? *Radiat Res* 2020; 193(6):552-9

Takahashi N, Misumi M, Murakami H, Niwa Y, Ohishi W, Inaba T, Nagamachi A, Suzuki G. Association between low doses of ionizing radiation, administered acutely or chronically, and time to onset of stroke in a rat model. *J Radiat Res* 2020; 61(5):666-73

Nakamura N. Questions on the oncogenic mutation theory of radiation carcinogenesis. *Hiroshima Igaku [J Hiroshima Med Assoc]* 2020; 73(4):211-4 (in Japanese)

Satoh Y, Uchimura A. Analysis of transgenerational genetic effects of radiation exposure using laboratory mice. *Hiroshima Igaku [J Hiroshima Med Assoc]*, 2020; 73(4):228-31 (in Japanese)
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Jang S, Suto Y, Liu J, Liu Q, Zuo Y, Duy PN, Miura T, Abe Y, Hamasaki K, Suzuki K, Kodama S. Capabilities of the ARADOS-WG03 regional network for large scale radiological and

nuclear emergency situations in Asia. *Radiat Prot Dosimetry* 2019;186(1):139-42.

Hamasaki K, Nakamura N. Effect of radiation exposures on fetal hematopoietic cells. *Current Stem Cell Reports*, 2019; 5(2):92-9.

Hirai Y, Cordova KA, Kodama Y, Hamasaki K, Awa AA, Tomonaga M, Mine M, Cullings HM, Nakamura N. Tooth enamel ESR doses and cytogenetic doses of Nagasaki atomic-bomb survivors in comparison with DS02R1 doses. *Int J Radiat Biol*, 2019; 95(3):321-8.

Joo J, Omae Y, Hitomi Y, Park B, Shin HJ, Yoon KA, Sawai H, Tsuji M, Hayashi T, Kong S, Tokunaga K, Kim J. The association of integration patterns of human papilloma virus and single nucleotide polymorphisms on immune- or DNA repair-related genes in cervical cancer patients. *Sci Rep*, 2019; 9(1):13132.

Nakamura N. History of radiation genetics: light and darkness. *Int J Radiat Biol*, 2019; 95(7):999-1014.

Yoshida K, French B, Yoshida N, Hida A, Ohishi W, Kusunoki Y. Radiation exposure and longitudinal changes in peripheral monocytes over 50 years: The Adult Health Study of atomic-bomb survivors. *Br J Haematol*, 2019; 185:107-15.

Noda A. Mutation. In chapter 2.14, *Encyclopedia of Radiation Medical Science*, 2019; 131-35. Asakura Publishing. (in Japanese)

2) Meeting presentations (January 2021 - December 2021):

Hamasaki K. Cytogenic analyses of PBLs from A-bomb survivors--Consider the impact of the therapeutic exposure. The 3rd Research Coordination Meeting (RCM) of the Coordinated Research Project (CRP) 8-12 February 2021, Vienna (online)

Hayashi T. Genome study on genetic polymorphisms associated with disease development. The 25th West-Japan Medical English Workshop. 18 April 2021 (Online)

Noda A. Future genome studies on atomic bomb survivors and their offspring at RERF. The 61st Late A-bomb Effects Research Meeting, 6 June 2021, Hiroshima (online)

Nakamura N. Radiation exposure causes tissue inflammation which leads to an earlier onset of spontaneously arising cancer. The 58th Annual Meeting on Radioisotopes and Radiation

Researches, 7-9 July 2021, Aomori (online)

Uchimura A, Satoh Y, Higuchi M, Minakuchi Y, Toyoda A, Yagi T. Spontaneous germline mutations accumulated in long-term breeding mouse lines. The 93rd Annual Meeting of the Genetics Society of Japan, 8-10 September 2021, Tokyo (online)

Nakamura N. Filling the gap between epidemiology and radiation biology. The 1st JRRS-SIT workshop: "Invitations to Radiation Science" (Related meeting of 64th Annual Meeting of the Japanese Radiation Research Society) 21 September 2021, Mito (online)

Miura T, Kowatari M, Hamasaki K, Abe Y, Yoshino H. Capabilities of dosimetry laboratories in Japan in response to large-scale radiation accidents. The 64th Annual Meeting of the Japanese Radiation Research Society 22-24 September 2021, Mito (online)

Nakamura N. Questions on the mutation theory of radiation carcinogenesis. The 64th Annual Meeting of the Japanese Radiation Research Society, 22-24 September 2021, Mito (online)

Taga M, Yoshida K, Kyoizumi S, Kato N, Sasatani M, Suzuki K, Ogawa T, Kusunoki Y. Cytokine expression and genomic damage analyses after in vitro X-irradiation of primary hepatic stellate cells isolated from 1-week-old mice. The 64th Annual Meeting of the Japanese Radiation Research Society, 22-24 September 2021, Mito (online)

Yoshida K, Mika J, Polanska J, Candieas S, Kusunoki Y. Atomic-bomb radiation may affect T-cell repertoire diversity differently in naive and memory CD4 T-cell populations. The 64th Annual Meeting of the Japanese Radiation Research Society, 22-24 September 2021, Mito (online)

Nakamura N. Mechanisms of radiation action on carcinogenesis -- What is really induced? The 30th Anniversary International Symposium 2021, 27-29 September 2021, Aomori (online)

Tsuruyama T. Pathology application of mass spectrometry imaging. The 59th Annual Meeting of the Biophysical Society of Japan, 25-27 November 2021(online)

Hayashi T, Kato N, Yoshida N, Ohishi W, Omae Y, Tokunaga K. Evaluation of the applicability of blood smear samples to genome-wide association study. The 44th Annual Meeting of the Molecular Biology Society of Japan, 1-3 December 2021, Yokohama (online)

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Matsumoto R, Nakayama H, Matsumoto T, Fujimoto S, Satoh Y, Wakayama S, Wakayama T, Uchimura A, Yagi T, Sugo N. Genome-wide sequencing of ES cells from somatic nuclear transfer embryos identifies De Novo mutations in cortical neurons of DNA polymerase beta-deficient mice. The 44th Annual Meeting of the Molecular Biology Society of Japan 1-3 December 2021, Yokohama (online)