

1) Published and in-press reports (2021 - Current):**<2023 – Current>**

1. Domal SJ, Correa-Alfonso CM, Paulbeck CJ, Griffin KT, Sato T, Funamoto S, Cullings HM, Egbert SD, Endo A, Hertel NE, Lee C, Bolch WE. Fetal and maternal atomic bomb survivor dosimetry using the J45 pregnant female phantom series: Considerations of the kneeling and lying posture with comparisons to the DS02 system. *Health Phys.* 2023; 125(4):245-59. [RP18-59]
2. Hamasaki K, Matsumoto T, Cologne JB, Mukai M, Kodama Y, Noda A, Nakamura N. Translocations are induced in hematopoietic stem cells after irradiation of fetal mice. *J Radiat Res (Tokyo)*. 2023; 64(1):99-104. [RP-P4-17]
3. Hayashi T, Kato N, Furudoi K, Hayashi I, Kyoizumi S, Yoshida K, Kusunoki Y, Furukawa K, Imaizumi M, Hida A, Tanabe O, Ohishi W. Early-life atomic-bomb irradiation accelerates immunological aging and elevates immune-related intracellular reactive oxygen species. *Aging Cell*. 2023; 22(10):e13940. [RP4-02, RP3-07, RP2-11]
4. Kitamura H, Ishihara K, Kato N, Misumi M, Hida A, Yamada M. Neurocognitive function in aged survivors exposed to atomic bomb radiation in Utero: The Radiation Effects Research Foundation Adult Health Study. *Radiat Res.* 2023; 200(5):503-7. [RP3-11]
5. Liu Z, Cologne JB, Amundson SA, Noda A. Candidate biomarkers and persistent transcriptional responses after low and high dose ionizing radiation at high dose rate. *Int J Radiat Biol.* 2023; 99(12):1853-64. [No RP]
6. Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Spectra and characteristics of somatic mutations induced by ionizing radiation in hematopoietic stem cells. *Proc Natl Acad Sci USA*. 2023; 120(15):e2216550120. [RP-P3-19]
7. Nakamizo T, Misumi M, Takahashi T, Kurisu S, Matsumoto M, Tsujino A. Female “paradox” in atrial fibrillation - Role of left truncation due to competing risks. *Life*. 2023; 13(5):1132. [No RP]
8. Noma H, Misumi M, Tanaka S. Risk ratio and risk difference estimation in case-cohort studies. *J Epidemiol.* 2023; 33(10):508-13. [No RP]
9. Paulbeck CJ, Sato T, Funamoto S, Lee C, Griffin KT, Cullings HM, Egbert SD, Endo A, Hertel NE, Bolch WE. Fetal atomic bomb survivor dosimetry using the J45 series of pregnant female phantoms with realistic survivor exposure scenarios: Comparisons to dose estimates in the DS02 system. *Radiat Environ Biophys.* 2023; 62(3):317-29. [RP18-59]

10. Sposto R, Cordova KA, Hamasaki K, Nakamura N, Noda A, Kodama Y. The association of radiation exposure with stable chromosome aberrations in atomic bomb survivors based on DS02R1 dosimetry and FISH methods. *Radiat Res.* 2023; 199(2):170-81. [RP8-93]
11. Sposto R, Cullings H. The Use of Joint Models in Analysis of Aggregate Endpoints in RERF Cohort Studies. *Radiat Res.* 2024; **In Press** [RP 1-75]
12. Sposto R, Sugiyama H, Tsuruyama T, Brenner AV. Effect of radiation exposure on survival after first solid cancer diagnosis in A-bomb survivors. *Cancer Epidemiol.* 2023; 83:102341. [RP1-75, RP18-61]
13. Yamamura M, Ohishi M, Yanagihara H. Additive poisson regression via forced categorical covariates and generalized fused Lasso. *Procedia Comput Sci.* 2023; 225(1987-96). [No RP]
14. Yamamura M, Ohishi M, Yanagihara H. Spatio-temporal analysis of rates derived from count data using generalized fused Lasso Poisson model. *Intelligent Decision Technologies-Proceedings of the 15th KES-IDT 2023 Conference.* 2023; 352:225-234. [No RP]
15. Yoshida K, Misumi M, Yamaoka M, Kyoizumi S, Ohishi W, Sugiyama H, Hayashi T, Kusunoki Y. Naïve CD4 T cells highly expressing the inflammatory chemokine receptor CXCR3 increase with age and radiation exposure in atomic bomb survivors. *Radiat Res.* (2024) 201 (1): 71–76 [RP-P1-22]

<Submitted>

1. Nakamizo T, Cologne JB, Kishi T, Takahashi T, Inoue M, Ryukaku H, Hayashi T, Kusunoki Y, Fujiwara S, Ohishi W. Reliability, stability during long-term storage, and intra-individual fluctuation of the serum levels of osteopontin, osteoprotegerin, vascular endothelial growth factor-A, and interleukin-17A. *Eur J Med Res.* 2023; [RP 2-11]
2. Sposto R, Misumi M, Cologne JB. A Note on Potential Gains in Precision of Radiation Risk Estimates from Joint Analysis. *Am J Epidemiol.* 2023; [RP 1-75, RP 18-61]
3. Tsai K, Brenner A, Sugiyama H, Utada M, Morenz E, Carone M, French B, Phipps A. Effect Modification by Reproductive Factors on Radiation-Related Lung Cancer Risk among Atomic Bomb Survivors. *Radiat Res.* 2023; [RP-S1-20]

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1. Brenner AV, Preston DL, Sakata R, Cologne JB, Sugiyama H, Utada M, Cahoon EK, Grant EJ, Mabuchi K, Ozasa K. Comparison of all solid cancer mortality and incidence dose-response in the Life Span Study of atomic bomb survivors, 1958-2009. *Radiat Res.* 2022; 197(5):491-508. [RP1-75, RP18-61]
2. Cologne JB, 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.* 2022; 61(1):59-72. [RP-S3-19]

3. Griffin KT, Sato T, Funamoto S, Chizhov K, Domal S, Paulbeck C, Bolch W, Cullings HM, Egbert S, Endo A, Hertel N, Lee C. Japanese pediatric and adult atomic bomb survivor dosimetry: Potential improvements using the J45 phantom series and modern Monte Carlo transport. *Radiat Environ Biophys.* 2022; 61(1):73-86. [RP18-59]
4. Ishihara K, Kato N, Misumi M, Kitamura H, Hida A, Yamada M. Radiation effects on late-life neurocognitive function in childhood atomic bomb survivors: A Radiation Effects Research Foundation Adult Health Study. *Radiat Res.* 2022; 197(4):403-7. [RP3-11]
5. Little MP, Brenner AV, Grant EJ, Sugiyama H, Preston DL, Sakata R, Cologne JB, Velazquez-Kronen R, Utada M, Mabuchi K, Ozasa K, Olson JD, Dugan GO, Pazzaglia S, Cline JM, Applegate KE. Age effects on radiation response: Summary of a recent symposium and future perspectives. *Int J Radiat Biol.* 2022; 98(11):1673-83. [RP1-75]
6. Ohishi M, Yamamura M, Yanagihara H. Coordinate descent algorithm of generalized fused Lasso logistic regression for multivariate trend filtering. *Japanese Journal of Statistics and Data Science.* 2022; 5(2):535-51. [No RP]
7. Tatsukawa Y, Cordova KA, Yamada M, Ohishi W, Imaizumi M, Hida A, Sposto R, Sakata R, Fujiwara S, Nakanishi S, Yoneda M. Incidence of diabetes in the atomic bomb survivors: 1969-2015. *J Clin Endocrinol Metab.* 2022; 107(5):e2148-55. [RP2-75, RP1-15]
8. Yoshida K, Satoh Y, Uchimura A, Misumi M, Kyoizumi S, Taga M, Matsuda Y, Noda A, Kusunoki Y. Massive expansion of multiple clones in the mouse hematopoietic system long after whole-body X-irradiation. *Sci Rep.* 2022; 12(1):17276. [RP1-08]

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1. Amano MA, French B, Sakata R, Dekker M, Brenner AV. Lifetime risk of suicide among survivors of the atomic bombings of Japan. *Epidemiol Psychiatr Sci.* 2021; 30(e43). [RP1-75]
2. Bockwoldt B, Sugiyama H, Tsai K, Bhatti P, Brenner AV, Hu A, Kerr KF, Morenz E, French B, Phipps AI. Gastrointestinal cancer survival and radiation exposure among atomic bomb survivors: The Life Span Study. *Cancer Epidemiol Biomarkers Prev.* 2021; 30(2):412-8. [RP-S5-18]
3. Grant EJ, Yamamura M, Brenner AV, Preston DL, Utada M, Sugiyama H, Sakata R, Mabuchi K, Ozasa K. Radiation risks for the incidence of kidney, bladder and other urinary tract cancers: 1958-2009. *Radiat Res.* 2021; 195(2):140-8. [RP1-75, RP18-61]

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4. 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). [RP4-02, RP3-07, RP2-75, RP2-11]
 5. Hida A, Imaizumi M, French B, Ohishi W, Haruta D, Eguchi K, Nakamura H, Kawakami A. Association of human T-cell leukemia virus type 1 with prevalent rheumatoid arthritis among atomic bomb survivors--A cross-sectional study. *Medicine*. 2021; 100(24):e26297. [RP-B43-06, RP3-07]
 6. Hirahara N, Miyata H, Kato N, Hirata Y, Murakami A, Motomura N. Development of bayesian mortality categories for congenital cardiac surgery in Japan. *Ann Thorac Surg*. 2021; 112(3):839-45. [No RP]
 7. Hu A, French B, Sakata R, Bhatti P, Bockwoldt B, Grant EJ, Phipps A. The possible impact of passive smoke exposure on radiation-related risk estimates for lung cancer among women: The Life Span Study of atomic bomb survivors. *Int J Radiat Biol*. 2021; 97(11):1548-54. [RP-S2-18]
 8. Kaiser JC, Misumi M, Furukawa K. Biologically-based modeling of radiation risk and biomarker prevalence for papillary thyroid cancer in Japanese a-bomb survivors 1958 - 2005. *Int J Radiat Biol*. 2021; 97(1):19-30. [RP-S1-16]
 9. Kato N, Noma H, Nagashima K. Optimal ranking and selection for large-scale inference: Application of Bayesian hierarchical mixture modeling. *Keisanki Toukeigaku*. 2021; 32(2):105-17. [No RP]
 10. Little MP, Wakeford R, Zablotska LB, Borrego D, Griffin K, Allodji R, de Vathaire, Lee C, Brenner AV, Miller JS, Campbell D, Sadetzki S, Doody MM, Holmberg E, Lundell M, Adams MJ, French B, Linet MS, de Gonzalez. Lymphoma and multiple myeloma in cohorts of persons exposed to ionising radiation at a young age. *Leukemia*. 2021; 35(10):2906-16. [RP-A1-16]
 11. Mabuchi K, Preston DL, Brenner AV, Sugiyama H, Utada M, Sakata R, Sadakane A, Grant EJ, French B, Cahoon EK, Ozasa K. Risk of prostate cancer incidence among atomic bomb survivors: 1958-2009. *Radiat Res*. 2021; 195(1):66-76. [RP1-75, RP18-61]
 12. Nakamizo T, Cologne JB, Cordova KA, Yamada M, Takahashi T, Misumi M, Fujiwara S, Matsumoto M, Kihara Y, Hida A, Ohishi W. Radiation effects on atherosclerosis in atomic bomb survivors: A cross-sectional study using structural equation modeling. *Eur J Epidemiol*. 2021; 36(4):401-14. [RP7-09]
 13. Sugiyama H, Misumi M, Sakata R, Brenner AV, Utada M, Ozasa K. Mortality among individuals exposed to atomic bomb radiation in utero; 1950-2012. *Eur J Epidemiol*. 2021; 36(4):415-28. [RP2-61]

14. Utada M, Brenner AV, Preston DL, Cologne JB, Sakata R, Sugiyama H, Kato N, Grant EJ, Cahoon EK, Mabuchi K, Ozasa K. Radiation risk of ovarian cancer in atomic bomb survivors: 1958-2009. *Radiat Res.* 2021; 195(1):60-5. [RP1-75, RP18-61]
15. Yamada M, Furukawa K, Tatsukawa Y, Marumo K, Funamoto S, Sakata R, Ozasa K, Cullings HM, Preston DL, Kurtzio P. Yamada et al. Respond to "Radiation and Reproductive Health". *Am J Epidemiol.* 2021; 190(11):2337-8. [No RP]
16. Yamada M, Furukawa K, Tatsukawa Y, Marumo K, Funamoto S, Sakata R, Ozasa K, Cullings HM, Preston DL, Kurtzio P. Congenital malformations and perinatal deaths among the children of atomic bomb survivors: A reappraisal. *Am J Epidemiol.* 2021; 190(11):2323-33. [No RP]
17. Yamada M, Kato N, Kitamura H, Ishihara K, Hida A. Cognitive function among elderly survivors prenatally exposed to atomic bombings. *Am J Med.* 2021; 134(4):e264-7. [RP3-11]
18. Yamamura M, Ohishi M, Yanagihara H. Spatio-temporal adaptive fused lasso for proportion data. *Intelligent Decision Technologies--Proceedings of the 13th KES-IDT 2021 Conference.* 2021; 238(pp 479-89). [No RP]
19. 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. [RP2-75]

Meeting Presentations (January 2023 - December 2023):

Kadowaki Y, Yamada M, Brenner AV, Sugiyama H, Utada M, Misumi M, Sakata R. The reproducibility of self-reported age at menarche among the Life Span Study of atomic bomb survivors. 33rd Annual Scientific Meeting of the Japan Epidemiological Association. 1-3 February 2023, Hamamatsu [RP1-75, RP11-69, RP14-78]

Ozasa K, Grant EJ, Sakata R, Brenner AV, Sugiyama H, Utada M, Kadowaki Y, Cullings HM, Sposto R, Cologne JB, Misumi M, Preston DL, Cahoon EK, Mabuchi K. Radiation risk of cancer incidence among the Life Span Study of atomic bomb survivors. 33rd Annual Scientific Meeting of the Japan Epidemiological Association. 1-3 February 2023, Hamamatsu [RP 1-75, RP18-61]

Sugiyama H, Misumi M, Sakata R, Brenner AV, Ozasa K. Mortality among individuals exposed to atomic bomb radiation in utero: 1950-2012. 33rd Annual Scientific Meeting of the Japan Epidemiological Association. 1-3 February 2023, Hamamatsu [RP2-62]

Tatsukawa Y, Yamada M, Kurisu S, Ohishi W, Hida A, Sposto R, Yoneda M. Trends in the incidence of diabetes mellitus and the effects of city and birth cohort in a Japanese population. 33rd Annual Scientific Meeting of the Japan Epidemiological Association. 1-3 February 2023, Hamamatsu [RP2-75, RP1-1]

Hayashi T, Kato N, Maki M, Morishita Y, Yoshida N, Tanabe O, Ohishi W. Preliminary study for SNP array analysis of DNA derived from blood smears stored for more than 50 years. International Society for Biological and Environmental Repositories Annual Meeting and Exhibits. 3-6 May 2023, Seattle, Washington, USA [RP-P1-19]

Brenner AV, Sugiyama H, Preston DL, Sakata R, Cologne JB, Utada M, Grant EJ, Ozasa K, Mabuchi K. Radiation risk of thyroid cancer in the Life Span Study of Japanese atomic bomb survivors: 1958-2009. International Society of Radiation Epidemiology and Dosimetry-1st meeting. 16-18 May 2023, Sitges, Spain [RP1-75, RP18-61]

Yamamura M, Ohishi M, Yanagihara H. Spatio-temporal analysis of rates derived from count data using generalized fused lasso Poisson model. Smart Digital Futures 2023, Intelligent Decision Technologies. 14-16 June 2023, Rome, Italy [No RP]

Tatsukawa Y, Yamada M, Ohishi W, Hida A, Sposto R. Diabetes incidence and risk factors in a Japanese cohort. International Diabetes Federation Western Pacific Region Congress 2023 and 15th Scientific Meeting of Asian Association for the Study of Diabetes. 21-23 July 2023, Kyoto [RP2-75, RP1-15]

Liu Z. Low-dose radiation risk prediction of solid tumor with deep learning. 2023 Joint Statistical Meetings. 2023 Joint Statistical Meetings. 5-10 August 2023, Toronto, Canada [RP 1-75]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Analysis of radiation-induced mutational signatures in mouse long-term hematopoietic stem cells by whole-genome sequencing. 47th Annual Meeting of the Chugoku Area Radiation Research Society. 18 August 2023, Hiroshima [RP-P3-19]

Misumi M, Sugiyama H. A multi-state modeling with Poisson regression utilizing grouped data in a radiation epidemiological study. 25th International Conference on Computational Statistics. 22-25 August 2023, London, UK [RP18-61, RP-S4-18]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Genome-wide frequencies and signatures of somatic mutations introduced by whole-body X-irradiation in mouse long-term hematopoietic stem cells. 17th International Congress of Radiology. 27-30 August 2023, Montreal, Canada [RP-P3-19]

Misumi M, Sugiyama H. An investigation on the lack of association between radiation and rectal cancer incidence in the atomic bomb survivor cohort. 17th International Congress of Radiation Research. 27-30 August 2023, Montreal, Canada [RP18-61, RP-S4-18]

Yoshida K, Uchimura A, Satoh Y, Matsuda Y, Tanabe O, Noda A, Misumi M, Kusunoki Y. Longitudinal trajectories of clonal hematopoiesis before and after 3-Gy whole-body irradiation in mice. 17th International Congress of Radiation Research. 27-30 August 2023, Montreal, Canada [RP1-23-1]

Misumi M, Sugiyama H. Risk analysis of colorectal cancer in the atomic bomb survivor study: A statistical perspective. Japanese Joint Statistical Meeting 2023. 3-7 September 2023, Kyoto [RP18-61, RP-S4-18]

Yamamura M, Ohishi M, Yanagihara H. Additive Poisson regression via forced categorical covariates and generalized fused Lasso. 27th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems. 6-8 September 2023, Athens, Online [No RP]

Yamamura M, Ohishi M, Yanagihara H. On spatial statistical analysis based on spatial data characteristics and spatial bias in sampling. 25th Ehime University DS Research Seminar. 14 September 2023, Matsuyama [No RP]

Spoto R. Radiation Effect Research Foundation--76 years of studying the health effects of radiation. 2023 United Nations Disarmament Fellowship Program. 2 October 2023, Hiroshima [No RP]

Kusunoki Y, Kyoizumi S, Nagamura H, Yamaoka M, Kubo Y, Miura M, Misumi M, Yoshida K. Both spontaneous and radiation-induced mutations clonally expand in irradiated mouse hematopoiesis. 85th Annual Meeting of the Japanese Society of Hematology. 13-15 October 2023, Tokyo [RP1-23-3]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Somatic mutations induced by whole-body X-irradiation in mouse hematopoietic stem cells and their clonal expansion. 85th Annual Meeting of the Japanese Society of Hematology. 13-15 Oct 2023, Tokyo, [RP-P3-19]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kume K, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Genome-wide analysis of radiation-induced somatic mutations in mouse long-term hematopoietic stem cells. 75th Annual Meeting of the American Society of Human Genetics. 1-5 November 2023, Washington, DC, USA [RP-P3-19]

Hayashi T, Kato N, Furudo K, Hayashi I, Kyoizumi S, Tanimoto K, Yoshida K, Imaizumi M, Hida A, Tanabe O, Ohishi W. Early-life irradiation accelerates immunological aging and elevates immune-related intracellular reactive oxygen species. 66th Annual Meeting of the Japanese Radiation Research Society. 6-8 November 2023, Tokyo [RP4-02, RP3-07, RP2-75, RP2-11]

Kusunoki Y, Miura M, Nagamura H, Yamaoka M, Kubo Y, Koyama K, Toshishige M, Misumi M, Kyoizumi S, Satoh Y, Uchimura A, Yoshida K. Next generation sequencing assessments of recurrent somatic mutations and lymphocyte receptors in mouse bone marrow cells following whole-body X-irradiation. 66th Annual Meeting of the Japanese Radiation Research Society. 6-8 November 2023, Tokyo [RP1-23-3]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Somatic mutations and clonal proliferation induced in mouse

hematopoietic stem cells by X-irradiation. 66th Annual Meeting of the Japanese Radiation Research Society. 6-8 November 2023, Tokyo [RP-P3-19]

Misumi M, Sugiyama H. Relationship among radiation, adenoma polyps, and rectal cancer incidence in atomic bomb survivors. 66th Annual Meeting of the Japanese Radiation Research Society. 6-8 November 2023, Tokyo [RP18-61, RP-S4-18]

Brenner AV, Preston DL, Sugiyama H, Cologne JB, Sakata R, Grant EJ, Utada M, Cahoon EK, Spoto R, Ozasa K, Mabuchi K. Analysis of solid cancer incidence in the LSS of atomic bomb survivors: 1958-2009. ICRP 2023, 7th International Symposium on the System of Radiological Protection. 6-9 November 2023, Tokyo, [RP1-75, RP18-61]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Analysis of somatic mutations and clonal dynamics of mouse hematopoietic stem cells after whole-body X-irradiation by whole-genome sequencing. 52nd Annual Meeting of the Japanese Environmental Mutagen and Genome Society. 11-12 November 2023, Fukuoka [RP-P3-19]

Spoto R. Radiation and the occurrence of cancer--Findings from the Radiation Effects Research Foundation. 25th International Charles Heidelberger Symposium on Cancer Research. 17 November 2023, Hiroshima [No RP]

Hayashi T, Kato N, Tanimoto K, Maki M, Morishita Y, Yoshida N, Tanabe O, Ohishi W. Study of amplification methods for SNP analysis of DNA derived from blood smears preserved for more than 50 years. 46th Annual Meeting of the Molecular Biology Society of Japan. 6-8 December 2023, Kobe [RP-P2-22]

Matsuda Y, Uchimura A, Satoh Y, Kato N, Toshishige M, Kajimura J, Hamasaki K, Yoshida K, Hayashi T, Noda A, Tanabe O. Mutational signatures of ionizing radiation in mouse hematopoietic stem cells. 46th Annual Meeting of the Molecular Biology Society of Japan. 6-8 December 2023, Kobe [RP-P3-19]