

**SUMMARY OF PUBLICATIONS**  
**Department of Statistics**

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1.	# publications (including in-press) in 2024–present on which at least one departmental member was listed as an author or co-author	10 (1)*
2.	# publications (including in-press) in 2024–present originating in your department	3 (0)*
3.	# publications in #1-2 above with first author in the department	3 (0)*
4.	# publications in #2 with outside investigator as first author	0 (0)*
5.	# publications in #2 linked to RPs	9 (0)*

\* Total number of publications, with number in the Japanese language given in parenthesis.

**Published and in-press reports (2022 - Current):****<2024 – Current>**

1. Kusunoki Y, Miura M, Yamaoka M, Nagamura H, Misumi M, Yoshida K. Mouse study to estimate the time of mutation generation in radiation-induced clonal hematopoiesis. *Nagasaki Igakkai Zasshi [Nagasaki Med J]*. 2024; 99 (Special issue):239-44. [RP1-23-3] [*Mbs*]
2. 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 variation of circulating levels of osteopontin, osteoprotegerin, vascular endothelial growth factor-A, and interleukin-17A. *Eur J Med Res*. 2024; 29 (1):133. [RP2-11] [*Ahs*]
3. Sposto R, Cullings HM. The use of joint models in analysis of aggregate endpoints in RERF cohort studies. *Radiat Res*. 2024; 201 (4):304-9. [RP1-75] [*Sm*]
4. Sposto R, Misumi M, Cologne JB. A Note on Potential Gains in Precision of Radiation Risk Estimates from Joint Analysis. *Scientific Reports*. 2024; 14 (1):26750. [RP 1-75, RP 18-61] [*Sm*]
5. Tatsukawa Y, Sposto R, Yamada M, Ohishi W, Imaizumi M, Hida A, Sakata R, Fujiwara S, Nakanishi S, Ohno H. Relationship between radiation dose and markers of insulin resistance and inflammation in atomic bomb survivors. *J Clin Endocrinol Metab*. 2024; dgae621. [RP2-75, RP1-15] [*Ahs*]
6. Yamada Y, Imaoka T, Iwasaki T, Kobayashi J, Misumi M, Sakai K, Sugihara T, Suzuki K, Tauchi H, Yasuda H, Yoshinaga S, Sasatani M, Tanaka S, Doi K, Tomita M, Iizuka D, Kakinuma S, Sasaki M, Kai M. Establishment and activity of the planning and acting network for low dose radiation research in Japan (PLANET): 2016-2023. *J Radiat Res*. 2024; Tokyo:65. [No RP] [*Ahs*]
7. Yoshida K, Liu Z, Kubo Y, Miura M, Yamaoka M, Nagamura H, Misumi M, Kusunoki Y. Spermidine alleviates thymopoiesis defects and aging of the peripheral T-cell population in mice after radiation exposure. *Exp Gerontol*. 2024; 199 (112646). [RP1-23-3] [*Mbs*]
8. Yoshida K, Misumi M, Yamaoka M, Kyoizumi S, Ohishi W, Sugiyama H, Hayashi T, Kusunoki Y. Naive 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):71-6. [RP-P1-22] [*Ahs*]

**<In Press>**

1. Shimizu S, Sato T, Funamoto S, Sposto R, Cullings HM, Endo A, Egbert SD, Kai M. Calculations of mean quality factors and their implications for organ-specific Relative Biological Effectiveness (RBE) in analysis of radiation-related risk in the atomic bomb survivors. *Radiat Res*. 2025; In Press. [RP-18-59] [*Dos*]

## PUBLICATIONS AND MEETING PRESENTATIONS

Department of Statistics

Page 2

2. Yoshida K, Misumi M, Hamasaki K, Kyoizumi S, Satoh Y, Tsuruyama T, Uchimura A, Kusunoki Y. High-dose radiation preferentially induces clonal expansion of hematopoietic stem/progenitor cells over mature T and B cells in mouse bone marrow. *Stem Cell Reports*. 2025; In Press. [RP1-23-3] [Mbs]

### <2023>

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] [Dos]
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] [Mbs]
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] [Mbs]
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] [Ahs]
5. Little MP, Wakeford R, Zablotska LB, Borrego D, Griffin KT, Allodji RS, de Vathaire, Lee C, Brenner AV, Miller JS, Campbell D, Pearce MS, Sadetzki S, Doody MM, Holmberg E, Lundell M, French B, Adams MJ, Berrington de, Linet MS. Radiation exposure and leukaemia risk among cohorts of persons exposed to low and moderate doses of external ionising radiation in childhood. *Br J Cancer*. 2023; 129 (7):1152-65. [RP-A1-16]
6. 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] [Mbs]
7. 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] [Mbs]
8. 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] [Ahs]
9. 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] [Sm]

## PUBLICATIONS AND MEETING PRESENTATIONS

Department of Statistics

Page 3

10. 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] [*Dos*]
11. 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] [*Mbs*]
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] [*Mbs*]
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] [*Sm*]
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; 352:225-34. [No RP] [*Sm*]
15. Yamamura M, Yanagihara H, Ohishi M, Fukui K, Solvang H, Oien N, Haug T. Estimation of spatial effects by generalized fused Lasso for nonuniformly sampled spatial data: An analysis of the body condition of common minke whales (*balaenoptera acutorostrata acutorostrata*) in the Northeast Atlantic. *Hiroshima Univ Stat Res Group Technical Report.* 2023; 23 (5):1-27. [No RP]

### <2022 >

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] [*Lss*]
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] [*Ahs*]
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] [*Dos*]
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] [*Ahs*]

## PUBLICATIONS AND MEETING PRESENTATIONS

Department of Statistics

Page 4

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] [Sm]
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] [Ahs]
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] [Mbs]

### Meeting Presentations (January 2024 - December 2024):

Utada M, Nishisaka T, Cologne JB, Sugiyama H, Kadowaki Y, Brenner AV, Sakata R. Radiation effects on endometrioid carcinoma of the uterine corpus by pathological features among atomic bomb survivors. 34th Annual Scientific Meeting of the Japan Epidemiological Association; 31 January - 2 February 2024, Otsu. [RP1-06]

Ohishi W, Cologne JB, Kim YM, Hida A, Tsuge M, Chayama K, Fujiwara S. Mediation of radiation-associated hepatocellular carcinoma risk by hepatitis B and C virus infections. 33rd Conference of the Asian Pacific Association for the Study of the Liver; 27-31 March 2024, Kyoto. [RP1-09, RP9-92]

Yoshida K, Miura M, Kubo Y, Yamaoka M, Nagamura H, Liu Z, Misumi M, Kyoizumi S, Kusunoki Y. Reduced thymopoiesis in mice following radiation exposure was alleviated by spermidine. Keystone Symposia: Systems and Engineering Immunology; 9-12 April 2024, Banff, Canada. [RP1-23-3]

Misumi M, Sugiyama H. An evaluation of a competing event on the risk estimate of rectal cancer among the atomic bomb survivor cohort. Annual meeting of the Biometric Society of Japan; 10-11 May 2024, Fukuoka. [RP18-61, RP-S4-18]

Kusunoki Y, Miura M, Yamaoka M, Nagamura H, Misumi M, Yoshida K. Mouse study to estimate the time of mutation generation in radiation-induced clonal hematopoiesis. 64th Late A-bomb Effects Research Meeting; 2 June 2024, Nagasaki. [RP1-23-3]

Kusunoki Y, Misumi M, Miura M, Yamaoka M, Nagamura H, Yoshida K. Radiation-induced clonal hematopoiesis and inflammatory blood cell profiles in mice. 48th Annual Meeting of the Chugoku Area Radiation Research Society; 23 August 2024, Hiroshima. [RP1-23-3]

## PUBLICATIONS AND MEETING PRESENTATIONS

Department of Statistics

Page 5

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Utada M, Nishisaka T, Cologne JB, Sugiyama H, Kadowaki Y, Brenner AV, Sakata R. Radiation effects on uterine corpus cancer by histological type among atomic-bomb survivors: 1958-2011. 48th Annual Meeting of the Chugoku Area Radiation Research Society; 23 August 2024, Hiroshima. [RP1-06]

Liu Z. The promise and challenges of deep learning for radiation risk prediction. 70th Annual Meeting of the Radiation Research Society; 15-18 September 2024, Tucson, Arizona, USA. [RP1-75]

Tatsukawa Y, Sposto R, Yamada M, Imaizumi M, Hida A, Sakata R, Ohishi W. Atomic bomb radiation exposure and insulin resistance--Adult Health Study. 67th Annual Meeting of the Japan Radiation Research Society; 25-28 September 2024, Kitakyushu. [RP2-75, RP1-15]

Yoshida K, Uchimura A, Satoh Y, Nagamura H, Yamaoka M, Maki M, Miura M, Sugiyama K, Matsuda Y, Tanabe O, Misumi M, Noda A, Kusunoki Y. Trajectories of clonal hematopoiesis mutations and peripheral blood indicators following high-dose X-irradiation in mice. 67th Annual Meeting of the Japanese Radiation Research Society; 25-28 September 2024, Kitakyushu. [RP1-23-3]

Misumi M. Short course on statistical methods for radiation risk modeling. Seminar on Statistical Methods for Radiation Risk Modeling; 26 September 2024, Seoul, South Korea. [RP18-61, RP-S4-18]

Kusunoki Y, Misumi M, Kyoizumi S, Matsuda Y, Uchimura A, Toshishige M, Satoh Y, Yoshida K. Analysis of hematopoietic progenitors in mice with radiation-induced clonal hematopoiesis. 86th Annual Meeting of the Japanese Society of Hematology; 11-13 October 2024, Kyoto. [RP1-23-3]

Sposto R. Radiation Effects Research Foundation--77years of studying the health effects of radiation. 2024 United Nations Disarmament Fellowship Program; 1 November 2024, Hiroshima. [No RP]

Sposto R. Statistics and Biology Research. Invited Class; Biostatistics Center, Kurume University, 1 November 2024, Kurume. [No RP]

Lindner H. Estimating tumor registry catchment area residency for the adjustment of solid cancer incidence in atomic bomb survivors. The Early Career & Student Statisticians Conference; 18-21 November 2024, Perth, Australia. [RP18-61]

Misumi M. Introduction to biostatistics for clinical researchers. 62nd Chugoku and Shikoku District Meeting of the Japan Diabetes Society; 7 December 2024, Okayama. [RP18-61, RP-S4-18]

Misumi M. A flexible radiation dose-response modeling considering age trends of radiation effects in Japanese atomic bomb survivors. Annual Meeting of the Society for Risk Analysis; 8-12 December 2024, Austin, Texas, USA. [RP1-75]