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### 1) Published and in-press reports:

### <2015 - Current>

<u>Cologne JB</u>, Izumi S, Sakata R, Yamada M. Interaction between exposure and age in cohort-based risk models: Effect modification or age dependence of the excess rate? Proceedings of the 2015 Annual Meeting of Applied Statistics Society. Kyoto, Japan: 2015. p.62-3.

Crowley KD, <u>Cullings HM</u>, <u>Landes RD</u>, Shore RE, Ullrich RL. Comments on estimating risks of low radiation doses--A critical review of the BEIR VII Report and use of the linear no-threshold (LNT) hypothesis by Edward J. Calabrese and Michael K. O'Connor. *Radiat Res*, 2015; 183(4):476-81.

<u>Furukawa K, Misumi M, Cologne JB, Cullings HM</u>. A Bayesian semiparametric model for radiation dose-response estimation. *Risk Anal*, 2015; 1-13 [Epub ahead of print]

Grant EJ, <u>Furukawa K</u>, Sakata R, Sugiyama H, Sadakane A, Takahashi I, Utada M, Shimizu Y, Ozasa K. Risk of death among the children of the atomic bomb survivors, an update after 62 years of follow-up: A cohort study. *Lancet Oncol*, 2015; 16(13):1316-23

Grant EJ, Ozasa K, Ban N, de González AB, Cologne JB, Cullings HM, Doi K, Furukawa K, Imaoka T, Kodama K, Nakamura N, Niwa O, Preston DL, Rajaraman P, Sadakane A, Saigusa S, Sakata R, Sobue T, Sugiyama H, Ullrich RL, Wakeford R, Yasumura S, Milder C, Shore RE. A report from the 2013 International Symposium: The evaluation of the effects of low-dose radiation exposure in the Life Span Study of atomic bomb survivors and other similar studies. *Health Phys*, 2015; 108(5):551-6.

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Hu Y, Yoshida K, Cologne JB, Maki M, Morishita Y, Sasaki K, Hayashi I, Ohishi W, Hida A, Kyoizumi S, Kusunoki Y, Tokunaga K, Nakachi K, Hayashi T. CD14 and IL18 gene polymorphisms associated with colorectal cancer subsite risks among atomic bomb survivors. *Hum Genome Variat*, 2015; 2(15035):1-9.

Imaizumi M, Ohishi W, <u>Nakashima E</u>, Sera N, Neriishi K, Yamada M, Tatsukawa Y, Takahashi I, Fujiwara S, Sugino K, Ando T, Usa T, Kawakami A, Akahoshi M, Hida A. Association of radiation dose with prevalence of thyroid nodules among atomic bomb survivors exposed in childhood (2007-2011). *JAMA Intern Med*, 2015; 175(2):228-36

Itakura K, Takahashi I, <u>Nakashima E</u>, Yanagi M, Kawasaki R, Neriishi K, Wang JJ, Wong TY, Hida A, Ohishi W, Kiuchi Y. Exposure to atomic bomb radiation and age-related macular degeneration in later life: The Hiroshima-Nagasaki atomic bomb survivor study. Invest Ophth Vis Sci, 2015; 56(9):5401-6

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Izumi S, Sakata R, Yamada M, <u>Cologne JB</u>. Interaction between a single exposure and age in cohort-based hazard rate models impacted the statistical distribution of age at onset. *J Clin Epidemiol*, 2015 (November 10):1-8. [Epub ahead of print]

Joo J, Yoon KA, Hayashi T, Kong SY, Shin HJ, Park B, <u>Kim YM</u>, Hwang SH, Kim J, Shin A, Kim JY. Nucleotide excision repair gene ERCC2 and 5 variants increase risk of uterine cervical cancer. *Cancer Res Treat*, 2015 Jun 22. doi: 10.4143/crt.2015.098. [Epub ahead of print]

Kerr GD et al. (RERF: <u>Cullings HM</u>, Grant EJ). Workshop report on atomic bomb dosimetry—Review of dose related factors for the evaluation of exposures to residual radiation at Hiroshima and Nagasaki. *Health Phys*, 2015; 109(6):582-600.

Key TJ et al., Endogenous Hormones and Breast Cancer Collaborative Group (RERF: Grant EJ, Cologne JB, Ohishi W, Hida A). Steroid hormone measurements from different types of assays in relation to body mass index and breast cancer risk in postmenopausal women: Reanalysis of eighteen prospective studies. Steroids, 2015; 99(Pt A):49-55.

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<u>Nakashima E</u>, Neriishi K, Hsu WL. Radiation may indirectly impair growth resulting in reduced standing height via subclinical inflammation in atomic-bomb survivors exposed at young ages. *Epidemiol Res Int*, 2015; Vol 2015(ID 295958):10 pages

<u>Nakashima E.</u> Radiation dose response estimation with emphasis on low dose range using restricted cubic splines: Application to all solid cancer mortality data, 1950-2003, in atomic bomb survivors. *Health Phys*, 2015; 109(1):15-24

Noda A, Mishima S, Hirai Y, Hamasaki K, <u>Landes RD</u>, Mitani H, Haga K, Kiyono T, Nakamura N, Kodama Y. Progerin, the protein responsible for the Hutchinson-Gilford progeria syndrome, increases the unrepaired DNA damages following exposure to ionizing radiation. *Gene Environ*, 2015; 37(13):1-12

Noda A, Suemori H, Hirai Y, Hamasaki K, Kodama Y, Mitani H, <u>Landes RD</u>, Nakamura N. Creation of mice bearing a partial duplication of HPRT gene marked with a GFP gene and detection of revertant cells in situ as GFP-positive mutant cells. *PLoS ONE*, 2015; 10(8):18 pages

<u>Yamada M</u>, Landes RD, Mimori Y, Nagano Y, Sasaki H. Radiation effects on cognitive function among atomic bomb survivors exposed at or after adolescence. Am J Med, 2015; doi: 10.1016/j.amjmed.2015.09.002 [Epub ahead of print]

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### <In Press>

Tewe, CD, Carter RL, <u>Cullings HM</u>. Generalized multiple indicators, multiple causes measurement error models, *Stat. Modelling*.

### <Submitted>

<u>Cullings HM</u>, Grant EJ, Egbert SD, Watanabe T, Oda T, Nakamura F, Yamashita T, Fuchi H, Funamoto S, Marumo K, Sakata R, Kodama Y, Ozasa K, Kodama K. DS02R1: Improvements to Atomic Bomb Survivors' Input Data and Implementation of Dosimetry System 2002 (DS02) and Resulting Changes in Estimated Doses.

Grant EJ, <u>Cologne JB</u>, Sharp GB, Eguchi H, Stevens RG, Izumi S, <u>Kim YM</u>, de González AB, Ohishi W, Nakachi K. Do serum levels of bioavailable estradiol alter the radiation risk of postmenopausal breast cancer?

Hamasaki K, <u>Landes RD</u>, Noda A, Nakamura N, Kodama Y. Irradiation at different fetal stages results in different translocation frequencies in adult mouse thyroid cells.

Kajimura J, Kyoizumi S, Kubo Y, <u>Misumi M</u>, Yoshida K, Hayashi T, Imai K, Ohishi W, Nakachi K, Weng N, Young LF, Shieh J, Moore MA, van den Brink MRM, Kusunoki Y. Relationship between spontaneous γH2AX foci formation and progenitor functions in circulating hematopoietic stem and progenitor cells among atomic-bomb survivors.

<u>Kim YM</u>, <u>Cologne JB</u>, <u>Cullings HM</u>. Simple power analysis for mediated effects with a dichotomous outcome based on the "mediation explained."

Lustig A, Shterev I, Geyer S, Shi A, Hu Y, Morishita Y, Nagamura H, Sasaki K, Maki M, Hayashi I, Furukawa K, Yoshida K, Kajimura J, Kyoizumi S, Kusunoki Y, Ohishi W, Nakachi K, Weng N, Hayashi T. Long term effects of radiation exposure on telomere lengths of leukocytes and its associated biomarkers among atomic-bomb survivors.

Milder CM, Sakata R, Sugiyama H, Sadakane A, Utada M, <u>Cordova KA</u>, Hida A, Ohishi W, Ozasa K, Grant EJ. Initial report for the Radiation Effects Research Foundation F<sub>1</sub> Mail Survey.

Misumi M, Furukawa K, Cologne JB, Cullings HM. A simulation-extrapolation for measurement error in radiation risk analysis.

<u>Nakashima E.</u> The Errors-In-Variables Problem: Effects of Additive Covariate Error on Parameters and Covariates of a Linear Regression Model.

Ozasa K, Sakata R, <u>Cullings HM</u>, Grant EJ. Association of acute radiation syndromes and rain after the bombings in the atomic-bomb survivors.

Shimizu M, Misumi M, Yamada M, Ohishi W, Yamamoto H, Kihara Y. Choice reaction time and grip strength as predictors of cardiovascular mortality in middle-aged and elderly Japanese: From the Radiation Effects Research Foundation Adult Health Study.

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Takahashi I, Shimizu Y, Grant EJ, Cologne JB, Ozasa K, Kodama K. Heart disease mortality in the Life Span Study, 1950-2008.

Tatsukawa Y, Misumi M, Kim YM, Yamada M, Ohishi W, Fujiwara S, Nakanishi S, Yoneda M. Association of body composition with development of diabetes in a Japanese population.

Yoshida K, <u>Misumi M</u>, Kubo Y, Yamaoka M, Kyoizumi S, Ohishi W, Hayashi T, Kusunoki Y. Long-term effects of radiation exposure and metabolic status on telomere length of peripheral blood T cells in atomic-bomb survivors. (will be soon(currently replying to comments from SRRC))

Yoshida K, <u>Nakashima E</u>, Kyoizumi S, Hakoda M, Hayashi T, Hida A, Ohishi W, Kusunoki Y. Metabolic status as a potential modifier of long-term radiation effects on peripheral lymphocyte subsets in atomic-bomb survivors.

### 2) Meeting Presentations (January 2015 - December 2015):

Tatsukawa Y, Misumi M, Kim YM, Yamada M, Ueda K, Takahashi I, Ohishi W, Yoneda M. Body composition and development of diabetes in a Japanese population, 97th Annual Meeting of the Endocrine Society, 5-8 March 2015 San Diego, California, USA

<u>Cologne JB</u>, Izumi S, Sakata R, Yamada M. Interaction between exposure and age in cohort-based risk models: effect modification or age dependence of the excess rate? 2015 Annual Meeting of Applied Statistics Society, 14 March 2015, Kyoto

<u>Cologne JB</u>. Methods and reasons for sampling from an epidemiologic cohort, UHCC Biostatistics and Informatics Seminar, 20 May 2015, Honolulu, Hawaii, USA

Ueda K, Ohishi W, <u>Nakashima E</u>, Mitsui F, Tatsukawa Y, Yamada M, Takahashi I, Tsuge M, Chayama K. Efficiency of HMW-adiponectin in screening for non-obese NAFLD, 51st Annual Meeting of the Japan Society of Hepatology, 21-22 May 2015 Kumamoto

<u>Furukawa K, Misumi M.</u> Statistical modeling issues for risk estimation in the low dose range, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

<u>Furukawa K.</u> Radiation-associated cancer risks by smoking history: Epidemiological findings in the Life Span Study, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Hamasaki K, <u>Landes RD</u>, Noda A, Nakamura N, Kodama Y. Translocation frequencies in mouse thyroid cells vary with fetal stage at the time of irradiation, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Imaizumi M, Ohishi W, <u>Nakashima E</u>, Hida A. Studies of thyroid diseases among AHS participants, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Kelly-Reif K, <u>Cullings HM</u>. Combined analysis and geospatial modeling of early radiation survey measurements after the Hiroshima atomic bomb,15th International Congress of Radiation Research, 25-29 May 2015, Kyoto

<u>Kim YM</u>. A simulation study on dose error remediation in atomic bomb survivor studies, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

<u>Landes RD</u>, Kodell RL, Lensing SY, Hauer-Jensen M. Sample size and power calculations for detecting radioprotection effects in animal experiments, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

<u>Misumi M.</u> An evaluation of dose error correction in radiation dose-response analysis, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

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Niwa Y, Murakami H, Ohishi W, <u>Misumi M</u>, Kusunoki Y, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Takahashi N. Study of radiation-related circulatory diseases using animal models to evaluate the feasibility of spontaneous hypertensive rat (SHR) as an animal model, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Noda A, Suemori H, Hirai Y, Hamasaki K, Mitani H, <u>Landes RD</u>, Kodama Y, Nakamura N. Next generation transgenic mouse models for detecting radiation-induced somatic and germ cell mutations, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Taga M, Hamatani K, Ito R, <u>Misumi M</u>, Kusunoki Y. Detection of ALK fusion genes in archival lung adenocarcinoma specimens among atomic bomb survivors, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Takahashi N, Murakami H, Ohishi W, <u>Misumi M</u>, Kusunoki Y, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Niwa Y. Study of radiation related circulatory diseases using stroke prone spontaneous hypertensive rat (SHRSP) strain as animal models, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

Tatsukawa Y, <u>Nakashima E</u>, <u>Misumi M</u>, Yamada M, Takahashi I, Hida A, Ohishi W. A-bomb radiation exposure and obesity: Adult Health Study, 15th International Congress of Radiation Research, 25-29 May 2015 Kyoto

<u>Cologne JB</u>. Omitted coveriates in nonstandard regression models, UHCC Biostatistics and Informatics Seminar, 17 June 2015, Honolulu, Hawaii, USA

Satoh Y, Fujimoto A, Abe T, Hamasaki K, <u>Misumi M</u>, Asakawa J. Analysis of X-irradiated human cell clones by whole genome sequencing, 40th Annual Meeting of the Chugoku Area Radiation Research Society, 17 July 2015 Hiroshima

<u>Furukawa K.</u> Projecting low-dose radiation risks by a semi-parametric dose response estimation, SRA World Congress on Risk 2015, 19-23 July 2015 Singapore

<u>Landes RD</u>, Haruta D. Efficiency and model selection compared between nested case control and full cohort incidence studies, 2015 Joint Statistical Meeting, 8-13 August 2015 Seattle, Washington, USA

<u>Kim YM</u>, <u>Cologne JB</u>, <u>Cullings HM</u>. Simple power analysis for mediated effects with a dichotomous outcome based on proportion explained, 36th Annual Conference of the International Society for Clinical Biostatistics, 23-27 August 2015 Utrecht, Netherlands

<u>Nakashima E.</u> Effects of additive covariate measurement error on parameters and covariates of linear regression model, FY2015 Japan Joint Statistical meeting, 6-9 September 2015 Okayama

<u>Misumi M.</u> A comparison of survival analysis with repeated measurements of a covariate vs. a baseline value only, Royal Statistical Society International Conference, 7-10 September 2015 Exeter, UK

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Yamada M, <u>Landes RD</u>, Mimori Y, Nagano Y, Sasaki H. Effect of stroke on longitudinal change of cognitive function: Radiation Effects Research Foundation Adult Health Study, 7th World Congress of the International Society for Vascular Behavioural and Cognitive Disorders, 16-19 September 2015 Tokyo

<u>Furukawa K.</u> Why are statisticians needed in medical research? 17th Annual Meeting of the Japan Osteoporosis Society, 17-19 September 2015 Hiroshima

<u>Cullings HM</u>, Sakata R, <u>Grant EJ</u>, Ozasa K. Accounting for the black rain and its contribution to health effects in the atomic bomb survivor cohorts, 61st Annual Meeting of the Radiation Research Society, 19-22 September 2015, Florida, USA

Takahashi N, Murakami H, Ohishi W, <u>Misumi M</u>, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Niwa Y. Study of the association between radiation exposure and circulatory diseases using stroke prone spontaneous hypertensive rat (SHRSP) as an animal model, 61st Annual Meeting of the Radiation Research Society, 19-22 September 2015 Weston, Florida, USA

<u>Kim YM.</u> Introduction to Radiation Effects Research Foundation (RERF) and its research, Korea Institute of Radiological & Medical Sciences Research Seminar, 21 September 2015 Seoul, South Korea

<u>Kim YM.</u> General explanation of causal inference and power analysis based on the "mediation proportion," Korea University Lecture 22 September 2015 Seoul, South Korea

<u>Kim YM.</u> Research at the Radiation Effects Research Foundation (RERF) and study designs in epidemiologic cohort, Korea University Lecture, 22 September 2015 Seoul, South Korea

Imaizumi M, Ohishi W, <u>Nakashima E</u>, Sera N, Neriishi K, Yamada M, Tatsukawa Y, Takahashi I, Fujiwara S, Sugino K, Ando T, Usa T, Kawakami A, Akahoshi M, Hida A. Autoimmune thyroid diseases and thyroid dysfunction in Hiroshima and Nagasaki atomic-bomb survivors exposed in childhood, 15th International Thyroid Congress, 18-23 October 2015 Orlando, Florida, USA

<u>Cologne JB</u>. Statistics in the real world: Types and uses of regression analysis in health research, Collaborative research on AHS weight fluctuation study data analysis, Shizuoka University Graduate School of Informatics, 2 November 2015, Hamamatsu

Niwa Y, Murakami H, Ohishi W, Misumi M, Kusunoki Y, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Takahashi N. Study of radiation-related circulatory diseases using animal models: Evaluating the feasibility of spontaneous hypertensive rat (SHR) as an animal model, 7th International MELODI (Multidisciplinary European Low Dose Initiative) Workshop, 9-11 November 2015 Munich, Germany

Tatsukawa Y, Misumi M, Kim YM, Yamada M, Takahashi I, Mitsui F, Ohishi W, Yoneda M. Relationship between body composition and development of diabetes in non-obese Japanese subjects, World Diabetes Congress 30 November – 4 December 2015 Vancouver, Canada

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<u>Landes RD</u>. Radiation effects on atrial fibrillation in atomic bomb survivors, Biostatistics Seminar, University of Arkansas for Medical Sciences, 2 December 2015, Little Rock, Arkansas

Noda A, Suemori H, Hirai Y, Hamasaki K, Mitani H, <u>Landes RD</u>, Kodama Y, Nakamura N. Next generation transgenic mouse models for detecting somatic and germ cell mutations in situ at whole body level, Annual Meeting of the American Society of Cell Biology, 12-16 December 2015 San Diego, California, USA

Hayashi T, <u>Furukawa K</u>, Ohishi W, Hayashi I, Yoshida K, Kyoizumi S, Kusunoki Y, Nakachi K. Age, smoking, and radiation effects on the production of reactive oxygen species in blood cells of atomic-bomb survivors and their association with immune-related biomarkers, International Chemical Congress of Pacific Basin Societies, 15-20 December 2015 Honolulu, Hawaii, USA

<u>Cullings HM</u>, <u>Grant EJ</u>. Spatial hierarchical modeling of thermoluminescent dosimetry measurements in tiles and bricks related to the Hiroshima atomic bomb, 9th Conference of the Asian Regional Section of the International Association for Statistical Computing, 17-19 December 2015, Singapore

<u>Kim YM</u>, <u>Cologne JB</u>, Tatsukawa Y, Ohishi W, Yamada M. Casual mediation analyses in nested case-control studies using conditional logistic regression, East Asia Regional Biometric Conference, 20-22 December 2015, Fukuoka