1) Published and in-press reports:

<2018>

Barlow B, <u>Cologne JB</u>. Alternative formulation of models in case-control studies. In: Breslow N, Borgan Ø, Chatterjee N, Gail MH, Scott A, Wild CJ, editors. *Handbook of Statistical Methods for Case-Control Studies*. Series: Chapman & Hall/CRC Handbooks of Modern Statistical Methods. CRC Press; 2018. Chapter 11, p.207-17.

Brenner AV, Preston DL, Sakata R, Sugiyama H, Berrington de González A, <u>French B</u>, Utada M, Cahoon EK, Sadakane A, Ozasa K, Grant EJ, Mabuchi K. Incidence of breast cancer in the Life Span Study of atomic bomb survivors: 1958-2009. *Radiat Res*, 2018; 190(4):434-44.

Castelletti N, Kaiser JC, Simonetto C, <u>Furukawa K</u>, Küchenhoff H, Stathopoulos GT. Risk of lung adenocarcinoma from smoking and radiation arises in distinct molecular pathways. *Carcinogenesis*, 2019;bgz036, https://doi.org/10.1093/carcin/bgz036 [Epub ahead of print]

<u>Cologne JB</u>, <u>Furukawa K</u>, Grant EJ, Abbott RD. Effects of omitting non-confounding predictors from general relative-risk models for binary outcomes. *J Epidemiol*, 2018;1-7. doi:10.2188/jea.JE20170226. [Epub ahead of print]

<u>Cologne J</u>, Loo L, Shvetsov Y, <u>Misumi M</u>, Lin P, Haiman CA, Wilkens LR, Le Marchand L. Stepwise approach to SNP-set analysis illustrated with the Metabochip and colorectal cancer in Japanese Americans- of the Multiethnic Cohort. *BMC Genomics*, 2018; 19(524):1-10.

<u>Cologne J</u>, Preston DL, Grant EJ, <u>Cullings HM</u>, Ozasa K. Effect of follow-up period on minimal-significant dose in the atomic-bomb survivor studies. *Radiat Environ Biophys*, 2018; 57(1):83-8.

<u>French B</u>, <u>Funamoto S</u>, Sugiyama H, Sakata R, <u>Cologne JB</u>, <u>Cullings HM</u>, Mabuchi K, Preston DL. Population density in Hiroshima and Nagasaki before the bombings in 1945: Its measurement and impact on radiation risk estimates in the Life Span Study of atomic bomb survivors. *Am J Epidemiol*, 2018; 187(8):1623-9.

<u>Furukawa K, Misumi M.</u> A semiparametric approach to evaluate the harm of low dose exposures. *J Radiol Prot*, 2018;38(1):286-98.

Grant EJ, <u>Cologne JB</u>, Sharp GB, Eguchi H, Stevens RG, Izumi S, <u>Kim YM</u>, Berrington de González A, Ohishi W, Nakachi K. Bioavailable serum estradiol may alter radiation risk of postmenopausal breast cancer: a nested case-control study. *Int J Radiat Biol*, 2018; 94(2): 97-105.

Hayashi T, Lynch HE, Geyer SM, <u>French B</u>, Yoshida K, Furudoi K, Sasaki K, Morishita Y, Nagamura H, Maki M, Hu Y, Hayashi I, Kyoizumi S, Kusunoki Y, Ohishi W, Fujiwara S, Shterev I, Nikolich-Zugich J, Murasko D, Sempowski GD, Nakachi K. Influenza vaccine

response among Hiroshima atomic-bomb survivors. *Hiroshima Igaku [J Hiroshima Med Assoc]*, 2018; 71(4):278-81. (in Japanese)

Hayashi T, Lynch HE, Geyer SM, Yoshida K, Furudoi K, Sasaki K, Morishita Y, Nagamura H, Maki M, Hu Y, Hayashi I, Kyoizumi S, Kusunoki Y, Ohishi W, Fujiwara S, Misumi M, Shterev I, Nikolich-Zugich J, Murasko D, Hale LP, Sempowski GD, Nakachi K. Impact of early life exposure to ionizing radiation on influenza vaccine response in an elderly Japanese cohort. *Vaccine*, 2018; 36(45):6650-9.

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*, 2018;1-24. doi: 10.1080/09553002.2019.1552807. [Epub ahead of print]

Hirai Y, Noda A, Kodama Y, <u>Cordova KA</u>, <u>Cullings HM</u>, Yonehara S, Fujihara M, Moriwaki S, Nishigori C, Mabuchi K, Kraemer KH, Nakamura N. Increased risk of skin cancer in Japanese heterozygotes of xeroderma pigmentosum group A. *J Human Genetics*, 2018; 63(11):1181-4.

Imaizumi M, <u>Furukawa K</u>, Ohishi W, Hida A. Thyroid diseases among atomic bomb survivors. *Radiat Prot Dosimetry*, 2018; 182(1):62-6.

Kajimura J, Lynch HE, Geyer SM, <u>French B</u>, Yamaoka M, Shterev ID, Sempowski GD, Kyoizumi S, Yoshida K, <u>Misumi M</u>, Ohishi W, Hayashi T, Nakachi K, Kusunoki Y. Radiationand age-associated changes in peripheral blood dendritic cell populations among aging atomic bomb survivors in Japan. *Radiat Res*, 2018; 189(1):84-94.

Little MP, Borrego D, French B, Zablotska LB, Adams MJ, Allodji R, de Vathaire F, Lee C, Brenner AV, Miller J, Campbell D, Ronckers CM, Pearce M, Doody MM, Holmberg E, Linet MS, Lundell M, Sadetzki S, Wakeford R, Berrington de González A. Leukaemia and myeloid malignancy among people exposed to low doses (<100 mSv) of ionising radiation during childhood: a pooled analysis of nine historical cohort studies. *Lancet Haematol*, 2018;1-13.

Misumi M, Furukawa K, Cologne JB, Cullings HM. Simulation-extrapolation for bias correction with exposure uncertainty in radiation risk analysis utilizing grouped data. *J Roy Statist Soc Ser C*, 2018; 67(1):275-89.

Ozasa K, <u>Cullings HM</u>, Ohishi W, Hida A, Grant EJ. Epidemiological studies of atomic bomb radiation at the Radiation Effects Research Foundation. *Int J Radiat Biol*, 2019; Jan 24: 1-13. doi. 10.1080/09553002.2019.15697478. [Epub ahead of print]

Rühm W, Azizova T, Bouffler S, <u>Cullings HM</u>, Grosche B, Little MP, Shore RE, Walsh L, Woloschak G. Typical doses and dose rates in studies pertinent to radiation risk inference at low doses and low dose rates. *J Radiat Res*, 2018; 59(S2):ii1-10.

Schöllnberger H, Eidemüller' M, Cullings HM, Simonetto C, Neff F, Kaiser JC.

Department of Statistics

Dose-responses for mortality from cerebrovascular and heart diseases in atomic bomb survivors: 1950-2003. *Radiat Environ Biophys*, 2018; 57(1):17-29.

Shimizu M, <u>Misumi M</u>, 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. *Intern Med J*, 2018; 48(11):1331-6.

Takahashi I, <u>Cologne JB</u>, Haruta D, Yamada M, Takahashi T, <u>Misumi M</u>, Fujiwara S, Matsumoto M, Kihara Y, Hida A, Ohishi W. Association between prevalence of peripheral artery disease and radiation exposure in the atomic bomb survivors. *J Am Heart Assoc*, 2018; 7(23): e008921.doi: 10.1161/JAHA.118.008921. [Epub ahead of print]

Tatsukawa Y, Misumi M, Kim YM, Yamada M, Ohishi W, Fujiwara S, Nakanishi S, Yoneda M. Body composition and development of diabetes: A 15-years follow-up study in a Japanese population. *Eur J Clin Nutr*, 2018; 72(3):374-80.

Utada M, Brenner AV, Preston DL, <u>Cologne JB</u>, Sakata R, Sugiyama H, Sadakane A, Grant EJ, Cahoon EK, Ozasa K, Mabuchi K. Radiation risks of uterine cancer in atomic bomb survivors: 1958-2009. *JNCI Cancer Spectrum*, 2019;2(4):1-6, 2019. DOI: 10.1093/jncics/pky081. [Epub ahead of print]

Yamada M, <u>Landes RD</u>, Hida A, Ishihara K, Krull KR. Effects of demographic variables on subjective neurocognitive complaints using the Neurocognitive Questionnaire (NCQ) in Japanese aged population: The Radiation Effects Research Foundation Adult Health Study. *Int J Environ Res Public Health*, 2019; 16(3). doi: 10.3390/ijerph16030421. [Epub ahead of print]

Yoshida K, <u>French B</u>, 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 Jan 13. doi: 10.1111/bjh.15750. [Epub ahead of print]

<In Press>

<u>Cologne JB</u>, Takahashi I, <u>French B</u>, Nanri A, <u>Misumi M</u>, Sadakane A, <u>Cullings HM</u>, Araki Y, Mizoue T. Association of weight fluctuation with ischemic heart disease mortality in a Japanese clinical cohort. *JAMA Netw Open*

Griffin K, Paulbeck C, Bolch WE, <u>Cullings HM</u>, Egbert DS, <u>Funamoto S</u>, Sato T, Endo A, Hertel NE, Lee C. Dosimetric impact of a new computational voxel phantom series for the Japanese atomic bomb survivors: children and adults. *Radiat Res*

Karmakar B, <u>French B</u>, Small DS. Integrating the Evidence from Evidence Factors in Observational Studies. *Biometrika*

<Submitted>

Cologne JB, Kim J, Sugiyama H, French B, Cullings HM, Preston DL, Mabuchi K, Ozasa K.

Effect of heterogeneity in background incidence on inference about the solid-cancer radiation dose response in atomic-bomb survivors.

Daniels RD, Kendall GM, Thierry-Chef I, Linet MS, <u>Cullings HM</u>. Assessment of strengths and weaknesses of dosimetry systems used in epidemiologic studies of low-dose radiation exposure and cancer risk.

Hirai Y, Kodama Y, Hamasaki K, Awa AA, Tomonaga M, Mine M, <u>Cullings HM</u>, Nakamura N. Electron-spin-resonance (ESR) dosimetry of tooth enamel from Nagasaki atomic-bomb survivors with a special reference to factory workers.

Jazic I, Haneuse S, <u>French B</u>, MacGrogran G, Rondeau V. Design and analysis of nested case-control studies for recurrent events subject to a terminal event.

<u>Kim YM</u>, <u>Cologne JB</u>, Tatsukawa Y, Ohishi W, Utada M, <u>Cullings HM</u>. Causal Mediation Analysis in Nested Case-Control Studies using Conditional Logistic Regression.

Kiuchi Y, Takahashi I, <u>Furukawa K</u>, Yanagi M, Itakura K, Hida A, Ohishi W. Association between radiation, glaucoma subtype, and retinal vessel diameter in atomic bomb survivors.

Sadakane A, <u>French B</u>, Brenner AV, Preston DL, Sugiyama H, Grant EG, Sakata R, Utada M, Cahoon EK, Mabuchi K, Ozasa K. Radiation and risk of liver, biliary tract, and pancreatic cancers among atomic bomb survivors in Hiroshima and Nagasaki: 1958-2009.

Sadakane A, <u>Landes RD</u>, Sakata R, Nagano J, Shore RE, Ozasa K. Medical radiation exposures among atomic bomb survivors: assessment of its impact on the risk estimate analysis of atomic bomb radiation.

Sugiyama H, <u>Misumi M</u>, Brenner AV, Grant EJ, Sakata R, Sadakane A, Utada M, Preston DL, Mabuchi K, Ozasa K. Radiation risk of incident colorectal cancer by anatomical site among atomic bomb survivors; 1958-2009.

2) Meeting Presentations (January 2018 - December 2018):

<u>Cullings HM</u>. Exploratory analysis of the agreement between DS02 calculations and thermoluminescent dosimetry (TLD) measurements in Hiroshima and implications for estimation dose from residual radiation, 21st Hiroshima International Symposium, 23 January, 2018, Hiroshima

Sadakane A, <u>French B</u>, Sakata R, Sugiyama H, Utada M, Ozasa K. Impact of death certificate inaccuracies on radiation risk estimates of incident liver cancer among atomic bomb survivors, 28th Annual Scientific Meeting of the Japan Epidemiological Association, 01-03 February 2018, Fukushima

Sugiyama H, Misumi M, Grant EJ, Sakata R, Sadakane A, Utada M, Preston DL, Mabuchi K, Ozasa K. Radiation risk of incident colorectal cancer by anatomical site among atomic bomb

survivors; 1958-2009, 28th Annual Scientific Meeting of the Japan Epidemiological Association, 01-03 February 2018, Fukushima

Utada M, Sakata R, <u>Cologne JB</u>, Grant EJ, Sugiyama H, Sadakane A, Brenner A, Preston DL, Mabuchi K, Ozasa K. Uterine cancer incidence among atomic bomb survivors: 1958-2009, 28th Annual Scientific Meeting of the Japan Epidemiological Association, 01-03 February 2018, Fukushima

<u>Cullings HM</u>. Review of dosimetry and risk model analysis on the atomic bomb survivors, 210th RERBM Seminar / 14th Phoenix Leader Education Program Seminar, 19 April 2018, Hiroshima

Sakata R, Sugiyama H, Sadakane A, Utada M, Brenner AV, <u>French B</u>, <u>Cologne JB</u>, <u>Misumi M</u>, Grant EJ, Ozasa K. Recent results from the Life-span study of atomic-bomb survivors, 43rd Annual Meeting of the Chugoku Area Radiation Research Society, 31 July 2018, Hiroshima

<u>Misumi M</u>, Sugiyama H. Analysis of colorectal cancer risks in the atomic bomb survivor cohort allowing for correlated competing events, 38th Annual Conference of the International Society for Clinical Biostatistics, 26-30 August 2018, Melbourne, Australia

Hayashi T, <u>Furukawa K</u>, Yoshida K, Kusunoki Y, Kyoizumi S, Ohishi W. Effects of age and radiation on serum iron and intracellular ROS (H_2O_2) in blood of atomic-bomb survivors, 25th Annual Meeting of the Japanese Society of Immunotoxicology, 18-19 September 2018, Tsukuba, Ibaraki

Brenner AV, Sugiyama H, Preston DL, <u>French B</u>, Sadakane A, Mabuchi K, Ozasa K. Incidence of Central Nervous System tumors in the Life Span Study cohort of atomic bomb survivors, 1958-2009, 24th International Meeting Conference on Radiation and Health, 22-25 September 2018, Chicago, Illinois, USA

Hu A, Bhatti P, Kerr K, Phipps A, Sakata R, <u>French B</u>, Grant EJ. Can passive smoking explain the higher radiation-related excess relative risk of lung cancer for women compared to men among atomic bomb survivors? 24th International Meeting Conference on Radiation and Health, 22-25 September 2018, Chicago, Illinois, USA

Sugiyama H, <u>Misumi M</u>, Ozasa K. Mortality risk of in-utero exposure to atomic bomb radiation: 1950-2012, 24th International Meeting Conference on Radiation and Health, 22-25 September 2018 Chicago, Illinois, USA

<u>Cordova KA</u>, <u>Cullings HM</u>. Assessing the relative biological effectiveness of neutrons using doses to organs of varying depths in the atomic bomb survivors, 24th International Meeting Conference on Radiation and Health, 23-25 September 2018, Chicago, Illinois, USA

<u>Cullings HM</u>, Kendall GM, Thierry-Chef I, Linet MS, Daniels RD. Dosimetry systems used in contemporary epidemiologic studies of low-dose radiation exposure and cancer risks: Assessment of strengths and weaknesses, 24th International Meeting Conference on Radiation and Health, 23-25 September 2018, Chicago, Illinois, USA

<u>French B.</u> Statistical methods for quantifying radiation health effects, 64th International Meeting Conference on Radiation and Health, 23-26 September 2018, Chicago, Illinois, USA

Hayashi T, <u>Furukawa K</u>, Ohishi W, Yoshida K, Kyoizumi S, Kusunoki Y. Effects of age and radiation on the production of reactive oxygen species in blood cells of Hiroshima atomic-bomb survivors, 64th Annual Meeting of the Radiation Research Society, 23-26 September 2018, Chicago, Illinois, USA

<u>Misumi M</u>. An investigation on effects of correlated competing events on the target risk estimate in radiation epidemiological studies, 24th International Meeting Conference on Radiation and Health, 23-26 September 2018, Chicago, Illinois, USA

Takahashi N, Murakami H, Ohishi W, <u>Misumi M</u>, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Tsuyama N, Nakamura AJ, Mizuno H. The association between either low-dose or low-dose rate radiation exposure and increasing risk of circulatory diseases--Attempt to infer potential mechanisms underlying the radiation associated circulatory disease, 64th Annual Meeting of the Radiation Research Society, 23-26 September 2018 Chicago, Illinois, USA

Utada M, Brenner AV, Sakata R, Cologne JB, Grant EJ, Sugiyama H, Sadakane A, Preston DL, Mabuchi K, Ozasa K. Radiation risk of uterine cancer among atomic-bomb survivors in Hiroshima and Nagasaki 1958-2009, 24th International Meeting Conference on Radiation and Health, 23-25 September 2018, Chicago, Illinois, USA

Yoshida K, <u>French B</u>, Yoshida N, Hida A, Ohishi W, Kusunoki Y. Increases in peripheral blood monocytes among aging atomic-bomb survivors, Cold Spring Harbor Meeting: Mechanisms of Aging, 01-05 October 2018, New York, USA

Hayashi T, <u>Furukawa K</u>, Yoshida K, Kusunoki Y, Kyoizumi S, Ohishi W. Effects of age and radiation on atomic bomb survivors' intracellular ROS in blood and serum iron, 61st Annual Meeting of the Japan Radiation Research Society, 07-09 November 2018, Nagasaki

Ohishi W, Ueda K, <u>Cullings HM</u>, Fujiwara S, Suzuki G, Hayashi T, Hida A, Ozasa K, Tahara E. Impact of chronic atrophic gastritis on radiation risk of noncardia gastric cancer, 61st Annual Meeting of the Japan Radiation Research Society, 07-09 November 2018, Nagasaki

Takahashi N, Murakami H, Ohishi W, <u>Misumi M</u>, Nagamachi A, Inaba T, Tanaka S, Tanaka I, Tsuyama N, Nakamura AJ, Mizuno H. The association between either low-dose or low-dose rate radiation exposure and increasing risk of circulatory diseases, 61st Annual Meeting of the Japan Radiation Research Society, 07-09 November 2018 Nagasaki

Yamada M, <u>Landes RD</u>, Hida A, Ishihara K, Krull KR. Evaluation of late-life subjective neurocognition using a Japanese version of the Neurocognitive Questionnaire (NCQ) among childhood atomic bomb survivors. 50th Congress of International Society of Paediatric Oncology. 16-19 November, 2018, Kyoto

PUBLICATIONS AND MEETING PRESENTATIONS Department of Statistics

Page 7

Hayashi T, <u>Furukawa K</u>, Yoshida K, Kusunoki Y, Kyoizumi S, Ohishi W. Relationship between intracellular ROS levels in human blood cells and serum ferritin and iron, 41st Annual Meeting of the Molecular Biology Society of Japan, 28-30 November 2018, Yokohama

<u>Misumi M.</u> An evaluation of measurement error correction in radiation risk analysis focusing on low dose exposure, Annual Meeting of the Society for Risk Analysis, 02-06 December 2018, New Orleans, Louisiana, USA

Misumi M. Radiation risk of incident colorectal cancer by anatomical site among atomic bomb survivors: 1958-2009, HMGU DRS Colloquium, 06 December 2018, Munich, Germany

<u>French B.</u> Joint regression modeling of longitudinal and event-time outcomes, 2018 Seminar of the Biometric Society of Japan, 07-08 December 2018, Kyoto