

Richard Wakeford
Honorary
Division of Population Health, Health Services Research & Primary Care (L5)



Overview

Substantial expertise in epidemiology and risk assessment of ionising radiation.
Appointed Officer of the Order of the British Empire (OBE) "for services to the advancement of the science of radiation protection" in the King's Birthday Honours 2024.

Membership of professional bodies

Fellow of the Royal Statistical Society and Chartered Statistician
Honorary Fellow of the Society for Radiological Protection and Chartered Radiation Protection Professional
Fellow of the Institute of Physics, Chartered Physicist and Chartered Scientist
Member of the Nuclear Institute and Chartered Engineer

Employment History (prior to The University of Manchester)

1976-1977	Demonstrator, Department of Physics, University of Liverpool Continuing postgraduate research on proton-antiproton reactions using bubble-chamber photographs produced at CERN, Geneva. Some undergraduate teaching duties.
1977-1981	Shift Shop Manager/Technical Support Shop Manager/ Operations Shop Manager, British Nuclear Fuels plc, Centrifuge Operations, Capenhurst Works, Chester Responsible for the shift-to-shift and day-to-day running of the commercial gas centrifuge uranium enrichment plant. Conducting statistical analysis of plant performance data to improve the efficiency of the plant.
1981-1987	Senior Technologist, British Nuclear Fuels plc, Technical Services Department, Risley, Warrington Criticality specialist involved in the safety assessment of new and existing plants at Sellafield. Part of a team developing a large statistical simulation computer program for the analysis of neutron multiplication behaviour in a wide variety of systems, in the context of nuclear criticality safety.
1987-1993	Principal Research Scientist, British Nuclear Fuels plc, Health & Safety Directorate, Risley, Warrington Investigating the epidemiology of childhood leukaemia and nuclear installations, the statistical analysis of the spatial distribution of childhood leukaemia cases, the risks to health from exposure to radiation, including occupational exposures.
1993-2003	Principal Research Scientist, British Nuclear Fuels plc, Group Legal Department, Risley, Warrington As above, but with special responsibility for the preparation of technical material for legal cases. Also carrying out consultancy for external clients on epidemiological matters.
2003-2006	Principal Research Scientist, British Nuclear Fuels plc, Group Legal Department, Daresbury Park, Warrington As above, but at Daresbury Park, Warrington, rather than Risley, Warrington.

Qualifications

Doctor of Philosophy, University of Liverpool
Bachelor of Science, University of Liverpool

Employment

Honorary Professor

Honorary

Division of Population Health, Health Services Research & Primary Care (L5)

The University of Manchester

1 Jun 2020 → present

Member of Expert Group on Epidemiological Studies of Radiation and Cancer

United Nations Scientific Committee on the Effects of Atomic Radiation

United States

1 Jan 2020 → present

International Associate Editor

Journal of Radiation Research

Japan

28 Feb 2018 → present

Member of Committee to Develop Guidance Material on Radiation Health Risk for Occupationally Exposed Workers

International Atomic Energy Agency (IAEA)

Vienna, Austria

1 Jan 2018 → present

Member of the Advisory Board to the Centre for Health effects of Radiological and Chemical Agents

Brunel University

Middlesex, United Kingdom

1 Jan 2017 → present

Member of the External Advisory Board of the DoReMi Programme

European Commission

Brussels, Belgium

1 Jan 2010 → 1 Jan 2016

Member of ICRP Task Group 79 on Effective Dose

International Commission on Radiological Protection

Canada

1 Jan 2010 → present

Member of ICRP Task Group 64 on Risks from Plutonium and Uranium

International Commission on Radiological Protection

Canada

1 Jan 2010 → present

Member of the Subgroup on Human Radiosensitivity of the Advisory Group on Ionising Radiation

Health Protection Agency

London, United Kingdom

1 Jan 2009 → 1 Jan 2012

Member Technical Working Party

Compensation Scheme for Radiation-linked Diseases

United Kingdom

1 Jan 2006 → present

Expert Adviser to National Institute for Radiological Sciences, Chiba, Japan, on its research programme

National Institute for Radiological Sciences

Japan

1 Jan 2005 → 1 Jan 2009

Chairman of IAEA/ILO/WHO meeting on developing international guidance for aiding decision-making on the attribution of detrimental health effects to occupational exposure

International Atomic Energy Agency (IAEA)

Vienna, Austria

1 Jan 2003 → 1 Jan 2003

Member of Expert Panel to discuss Fifth Framework Programme

European Commission

Brussels, Belgium

1 Jan 1998 → 1 Jan 1998

Member of European Commission/US Nuclear Regulatory Commission Expert Panel on Somatic Health Effects

European Commission

Brussels, Belgium

1 Jan 1995 → 1 Jan 1996

Member of Technical Committee Meeting on Classification of Cancer by Probability of Radiation Induction

International Atomic Energy Agency (IAEA)

Vienna, Austria

1 Jan 1995 → 1 Jan 1995

Research outputs

Twenty-first annual Warren K. Sinclair keynote address: Challenges faced by studies of nuclear industry workers

Wakeford, R., 13 Nov 2025, In: Journal of Radiological Protection. 45, 4, 041001.

The importance of data from the atomic bomb survivors for international radiological protection

Wakeford, R. & Laurier, D., 4 Sept 2025, In: Carcinogenesis. 46, 3

Forty years of investigations of childhood leukaemia 'clusters' near nuclear installations

Wakeford, R., 18 Aug 2025, In: International Journal of Epidemiology. 54, 5

Author's response to the letter 'Worker studies and their interpretation' by Richardson et al.

Wakeford, R., 14 Jul 2025, In: Journal of Radiological Protection. 45, 3

What about the workers? An update

Wakeford, R., 3 Feb 2025, In: Journal of Radiological Protection. 45, 1, 011504.

Introduction to the U.S. Million Person Study of health effects from low-level exposure to radiation

Boice, J. D., Bouville, A., Dauer, L. T., Golden, A. P. & Wakeford, R., 25 Nov 2024, *The Million Person Study of Low-Dose Radiation Health Effects*. Boice Jr., J. D., Bouville, A., Dauer, L. T. & Golden, A. P. (eds.). London: CRC Press, p. 3-6 4 p.

Radiation in the workplace: an opportunity for substantial epidemiological evidence

Wakeford, R., 25 Nov 2024, *The Million Person Study of Low-Dose Radiation Health Effects*. Boice Jr., J. D., Bouville, A., Dauer, L. T., Golden, A. P. & Wakeford, R. (eds.). London: CRC Press, p. 7-10 4 p.

The Million Person Study of Low-Dose Radiation Health Effects

Boice Jr., J. D. (Editor), Bouville, A. (Editor), Dauer, L. T. (Editor), Golden, A. P. (Editor) & Wakeford, R. (Editor), 25 Nov 2024, London: CRC Press. 380 p.

Thyroid cancer incidence in cohorts exposed in childhood to ¹³¹I released during the Windscale nuclear reactor accident at Sellafield, England, in 1957

McNally, R. J. Q., Wakeford, R., Bunch, K. J., Hayes, L., Vernon, S., Jeffrey, P.-A., Paley, L. & Elliott, A., 16 Aug 2024, (E-pub ahead of print) In: *Radiation and Environmental Biophysics*.

A Historical Survey of Key Epidemiological Studies of Ionizing Radiation Exposure

Little, M. P., Bazyka, D., Gonzalez, A. B. D., Brenner, A. V., Chumak, V. V., Cullings, H. M., Daniels, R. D., French, B., Grant, E., Hamada, N., Hauptmann, M., Kendall, G. M., Laurier, D., Lee, C., Lee, W. J., Linet, M. S., Mabuchi, K., Morton, L. M., Muirhead, C. R. & Preston, D. L. & 8 others, Rajaraman, P., Richardson, D. B., Sakata, R., Samet, J. M., Simon, S. L., Sugiyama, H., Wakeford, R. & Zablotska, L. B., 1 Aug 2024, In: *Radiation Research*. 202, 2, p. 432-487 56 p.

What about the workers?

Wakeford, R., 3 Jun 2024, In: *Journal of Radiological Protection*. 44, 2, 020202.

Recurrent medical imaging exposures for the care of patients: one way forward

Frush, D. P., Vassileva, J., Brambilla, M., Mahesh, M., Rehani, M., Samei, E., Applegate, K., Bourland, J., Ciraj-Bjenlac, O., Dahlstrom, D., Gershan, V., Gilligan, P., Godthelp, B., Hjemly, H., Kainberger, F., Mikhail-Lette, M., Holmberg, O., Paez, D., Schrandt, S. & Valentin, A. & 2 others, Van Deventer, T. & Wakeford, R., 9 Apr 2024, (E-pub ahead of print) In: *European radiology*.

Key highlights of the presentations at the Scientific Seminar on Radiological Protection Considerations for Fusion Reactors: Introduction

Wakeford, R., 27 Mar 2024, *Radiation Protection No. 200. EU Scientific Seminar 2022: Radiological Protection Considerations for Fusion Reactors*. Luxembourg: European Commission, Directorate-General for Energy X11, Vol. 200. p. 50-51 2 p. (Radiation Protection; vol. 200).

Summary of the round table contributions: Round table

Wakeford, R., 27 Mar 2024, *Radiation Protection No. 200. EU Scientific Seminar 2022: Radiological Protection Considerations for Fusion Reactors*. Luxembourg: European Commission, Directorate-General for Energy X11, Vol. 200. p. 58 1 p. (Radiation Protection; vol. 200).

The ICRP, MELODI, and ALLIANCE workshop on effects of ionizing radiation exposure in offspring and next generations: a summary of discussions

Degenhardt, Ä., Sreetharan, S., Amrenova, A., Adam-Guillermín, C., Dekkers, F., Dumit, S., Frelon, S., Horemans, N., Laurier, D., Liutsko, L., Salomaa, S., Schneider, T., Hande, M. P., Wakeford, R. & Applegate, K. E., 29 Jan 2024, (E-pub ahead of print) In: *International Journal of Radiation Biology*. p. 1-11 11 p.

Consideration of hereditary effects in the radiological protection system: evolution and current status

Amrenova, A., Ainsbury, E., Baudin, C., Giussani, A., Lochard, J., Rühm, W., Scholz-Kreisel, P., Trott, K., Vaillant, L., Wakeford, R., Zölzer, F. & Laurier, D., 8 Jan 2024, (E-pub ahead of print) In: *International Journal of Radiation Biology*. p. 1-13 13 p.

The radiation epidemiology of cancer - where do we stand now?

Wakeford, R., 24 Dec 2023, In: *Annals of the ICRP*. 52, 1-2 Annex, p. 208-239 32 p.

Solid cancer mortality among US radiation workers

Wakeford, R., 1 Dec 2023, In: *International Journal of Epidemiology*. 52, 6, p. 1992-1994 3 p.

Radiation exposure and leukaemia risk among cohorts of persons exposed to low and moderate doses of external ionising radiation in childhood

Little, M. P., Wakeford, R., Zablotska, L. B., Borrego, D., Griffin, K. T., Allodji, R. S., de Vathaire, F., Lee, C., Brenner, A. V., Miller, J. S., Campbell, D., Pearce, M. S., Sadetzki, S., Doody, M. M., Holmberg, E., Lundell, M., French, B., Adams, M. J., Berrington de González, A. & Linet, M. S., 19 Oct 2023, In: *British Journal of Cancer*. 129, 7, p. 1152-1165 14 p.

The LNT risk model and radiological protection

Wakeford, R., Balonov, M., Boice, J. D., Niwa, O., Preston, R. J., Shore, R. E. & Harrison, J. D., 6 Oct 2023, In: *Journal of Radiological Protection*. 43, 4

An Epidemiological Study of Lung Cancer and Selected Other Cancers among Namibian Uranium Workers

Agius, R., Batistatou, E., Gittins, M., Jones, S., McNamee, R., Liu, H., Rashid, A., van Tongeren, M., von Oertzen, G. & Wakeford, R., 16 Aug 2023, (E-pub ahead of print) In: *Radiation Research*. 200, 4, p. 340-348 9 p.

Effective doses and risks from medical diagnostic X-ray examinations for male and female patients from childhood to old age

Harrison, J. D., Haylock, R. G. E., Jansen, J. T. M., Zhang, W. & Wakeford, R., 14 Mar 2023, In: *Journal of Radiological Protection*. 43, 1, 16 p., 011518.

Summary of Radiation Research Society Online 67th Annual Meeting, Symposium on "Radiation and Circulatory Effects"

Schöllnberger, H., Dauer, L. T., Wakeford, R., Constanzo, J. & Golden, A., 2023, In: *International Journal of Radiation Biology*. 99, 4, p. 702-711 10 p.

Radiation dose rate effects: what is new and what is needed?

Lowe, D., Roy, L., Tabocchini, M. A., Rühm, W., Wakeford, R., Woloschak, G. E. & Laurier, D., 15 Oct 2022, (E-pub ahead of print) In: *Radiation and Environmental Biophysics*.

Cancer risks among studies of medical diagnostic radiation exposure in early life without quantitative estimates of dose

Little, M. P., Wakeford, R., Bouffler, S. D., Abalo, K., Hauptmann, M., Hamada, N. & Kendall, G. M., 1 Aug 2022, In: *Science of the Total Environment*. 832, p. 154723

The risk of cancer following high, and very high, doses of ionising radiation

Wakeford, R. & Hauptmann, M., 17 Jun 2022, In: *Journal of Radiological Protection*. 42, 2, 020518.

Risk of diseases of the circulatory system after low-level radiation exposure-an assessment of evidence from occupational exposures

Wakeford, R., 16 May 2022, In: *Journal of Radiological Protection*. 42, 2, 020201.

Evidence of cardiovascular disease risk in the workplace: A review

Wakeford, R., 15 May 2022, *Occupational Radiation Protection Enhancing the Protection of Workers — Gaps, Challenges and Developments : Proceedings of an International Conference Held in Vienna, Austria, 1–5 December 2014*. p. 133-137 5 p.

Response to Jargin

Wakeford, R., Mar 2022, In: *Journal of Radiological Protection*. 42, 1, 014502.

Review of the risk of cancer following low and moderate doses of sparsely ionising radiation received in early life in groups with individually estimated doses

Little, M. P., Wakeford, R., Bouffler, S. D., Abalo, K., Hauptmann, M., Hamada, N. & Kendall, G. M., 15 Jan 2022, In: *Environment International*. 159, p. 106983

Cancer risk following low doses of ionising radiation - Current epidemiological evidence and implications for radiological protection

Rühm, W., Laurier, D. & Wakeford, R., Jan 2022, In: *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*. 873, p. 503436

Radiation in the workplace - an opportunity for substantial epidemiological evidence

Wakeford, R., 2022, In: *International Journal of Radiation Biology*. 98, 4, p. 533-536 4 p.

ICRP Publication 150: Cancer Risks from Plutonium and Uranium Exposure

Tirmarche, M., Apostoaei, I., Blanchardon, E., Ellis, E. D., Gilbert, E., Harrison, J. D., Laurier, D., Marsh, J. W., Sokolnikov, M., Wakeford, R. & Zhivin, S., Dec 2021, In: *Annals of the ICRP*. 50, 4, p. 1-143 143 p.

Introduction to the special issue on the US Million Person Study of health effects from low-level exposure to radiation
Boice, J. D., Bouville, A., Dauer, L. T., Golden, A. P. & Wakeford, R., 26 Oct 2021, In: International Journal of Radiation Biology. 98, 4, p. 529-532 4 p.

Quantitative Bias Analysis of the Association between Occupational Radiation Exposure and Ischemic Heart Disease Mortality in UK Nuclear Workers

Vocht, F. D., Martin, R. M., Hidajat, M. & Wakeford, R., 9 Aug 2021, In: Radiation Research.

Overview of epidemiological studies of nuclear workers: opportunities, expectations, and limitations

Wakeford, R., 23 Jun 2021, In: Journal of Radiological Protection.

A review of studies of childhood cancer and natural background radiation

Kendall, G. M., Little, M. P. & Wakeford, R., 3 Jun 2021, In: International Journal of Radiation Biology. 97, 6, p. 769-781 13 p.

Summary of Radiation Research Society Online 66th Annual Meeting, Symposium on "Epidemiology: Updates on epidemiological low dose studies," including discussion

Milder, C. M., Kendall, G. M., Arsham, A., Schöllnberger, H., Wakeford, R., Cullings, H. M. & Little, M. P., 3 Jun 2021, In: International Journal of Radiation Biology. 97, 6, p. 866-873 8 p.

Chromosome Aberrations in a Group of People Exposed to Radioactive Releases from the Three Mile Island Nuclear Accident and Inferences for Radiation Effects

Little, M. P., Wakeford, R., Hatch, M., Ainsbury, E. A. & Tawn, E. J., 1 Jun 2021, In: Radiation Research. 195, 6, p. 584-589 6 p.

The Fukushima nuclear accident-a decade on

Wakeford, R., 1 Jun 2021, In: Journal of Radiological Protection. 41, 2

The use of dose quantities in radiological protection: ICRP publication 147 Ann ICRP 50(1) 2021

Harrison, J. D., Balonov, M., Bochud, F., Martin, C. J., Menzel, H.-G., Smith-Bindman, R., Ortiz-López, P., Simmonds, J. R. & Wakeford, R., 1 Jun 2021, In: Journal of Radiological Protection. 41, 2

Lymphoma and multiple myeloma in cohorts of persons exposed to ionising radiation at a young age

Little, M. P., Wakeford, R., Zablotska, L. B., Borrego, D., Griffin, K. T., Allodji, R. S., de Vathaire, F., Lee, C., Brenner, A. V., Miller, J. S., Campbell, D., Sadetzki, S., Doody, M. M., Holmberg, E., Lundell, M., Adams, M. J., French, B., Linet, M. S. & de Gonzalez, A. B., 28 May 2021, In: Leukemia.

A review of the types of childhood cancer associated with a medical X-ray examination of the pregnant mother

Wakeford, R. & Bithell, J. F., 4 May 2021, In: International Journal of Radiation Biology. 97, 5, p. 571-592 22 p.

ICRP publication 147 Ann ICRP 50(1) 2021: The use of dose quantities in radiological protection

Harrison, J. D., Balonov, M., Bochud, F., Martin, C., Menzel, H.-G., Ortiz-Lopez, P., Smith-Bindman, R., Simmonds, J. R. & Wakeford, R., 2 Mar 2021, In: Annals of the ICRP. 50, 1, p. 9-82

Plutopia. Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters, by Kate Brown. Oxford: Oxford University Press; 2013

Wakeford, R., 1 Jan 2021, In: Health Physics. 120, 1, p. 98-99 2 p.

Ischemic Heart Disease Mortality and Occupational Radiation Exposure in a Nested Matched Case-Control Study of British Nuclear Fuel Cycle Workers: Investigation of Confounding by Lifestyle, Physiological Traits and Occupational Exposures

de Vocht, F., Hidajat, M., Martin, R. M., Agius, R. & Wakeford, R., 2 Oct 2020, In: Radiation Research. 194, 4, p. 431-444 14 p.

Lifetime Mortality Risk from Cancer and Circulatory Disease Predicted from the Japanese Atomic Bomb Survivor Life Span Study Data Taking Account of Dose Measurement Error

Little, M. P., Pawel, D., Misumi, M., Hamada, N., Cullings, H. M., Wakeford, R. & Ozasa, K., 16 Sept 2020, In: Radiation Research. 194, 3, p. 259-276 18 p.

Purportedly High Cancer Risk among US Sailors on Nuclear-Powered Ships

Wakeford, R., 24 Jun 2020, In: Cancer Investigation. 38, 6, p. 372

John Francis Bithell (1939–2020)

Wakeford, R., 27 May 2020, In: Journal of Radiological Protection.

The Increasing Exposure of the Global Population to Ionizing Radiation

Ruano-Ravina, A. & Wakeford, R., Mar 2020, In: Epidemiology (Cambridge, Mass.). 31, 2, p. 155-159 5 p.

Ruby Anniversary of the Journal

Wakeford, R. & Thorne, M. C., 9 Jan 2020, In: Journal of Radiological Protection. 40, p. E1-E3

Chernobyl, Home Box Office (HBO)/Sky Atlantic television mini-series, May-June 2019

Wakeford, R., 8 Jan 2020, (E-pub ahead of print) In: Journal of Radiological Protection. 40, 1, p. 355-357

Epidemiological studies of natural sources of radiation and childhood cancer: current challenges and future perspectives

Mazzei-Abba, A., Folly, C. L., Coste, A., Wakeford, R., Little, M. P., Raaschou-Nielsen, O., Kendall, G. M., Hémon, D., Nikkilä, A., Spix, C., Auvinen, A. & Spycher, B. D., 2020, In: Journal of Radiological Protection. 40, 1, p. R1-R23

Atmospheric contamination with ruthenium-106 detected in Europe in Autumn 2017

Wakeford, R., 13 Sept 2019, (E-pub ahead of print) In: Journal of Radiological Protection. 40, 1, p. 358-360

Response to Letter by Moghissi and Calderone

Shore, R. E., Beck, H. L., Boice, J. D., Caffrey, E. A., Davis, S., Grogan, H. A., Mettler, F. A., Preston, R. J., Till, J. E., Wakeford, R., Walsh, L. & Dauer, L. T., Aug 2019, In: Health Physics. 117, 2, p. 224-225 2 p.

Does Low-Level Exposure to Ionizing Radiation Increase the Risk of Cardiovascular Disease?

Wakeford, R., 1 Jun 2019, In: Hypertension (Dallas, Tex. : 1979). 73, 6, p. 1170-1171 2 p.

Reply to Comment on 'Implications of recent epidemiologic studies for the linear nonthreshold model and radiation protection'

Shore, R. E., Beck, H. L., Boice, J. D., Caffrey, E. A., Davis, S., Grogan, H. A., Mettler, F. A., Preston, R. J., Till, J. E., Wakeford, R., Walsh, L. & Dauer, L. T., Jun 2019, In: Journal of Radiological Protection. 39, 2, p. 655-659 5 p.

Building a job-exposure matrix for early plutonium workers at the Sellafield nuclear site, United Kingdom

Riddell, A., Wakeford, R., Liu, H., O'Hagan, J., Macgregor, D., Agius, R., Wilson, C., Peace, M. & De Vocht, F., 22 May 2019, In: Journal of Radiological Protection. 39, 2, p. 620-634 15 p.

Recent Epidemiologic Studies and the Linear No-Threshold Model For Radiation Protection: Considerations Regarding NCRP Commentary 27

Shore, R. E., Beck, H. L., Boice, J. D., Caffrey, E. A., Davis, S., Grogan, H. A., Mettler, F. A., Preston, R. J., Till, J. E., Wakeford, R., Walsh, L. & Dauer, L. T., 1 Feb 2019, In: Health Physics. 116, 2, p. 235-246

Residential exposure to radon and DNA methylation across the lifecourse: an exploratory study in the ALSPAC birth cohort

de Vocht, F., Suderman, M., Ruano-Ravina, A., Thomas, R., Wakeford, R., Relton, C., Tilling, K. & Boyd, A., 7 Jan 2019, In: Wellcome open research. 4, 3, p. 3 3.

THE DOSE AND DOSE-RATE EFFECTIVENESS FACTOR (DDREF).

Wakeford, R., Azizova, T. V., Dörr, W., Garnier-Laplace, J., Hauptmann, M., Ozasa, K., Rajaraman, P., Sakai, K., Salomaa, S., Sokolnikov, M., Stram, D., Sun, Q., Wojcik, A., Woloschak, G., Bouffler, S. D., Grosche, B., Kai, M., Little, M., Shore, R. & Walsh, L. & 1 others, Ruhm, W., Jan 2019, In: Health Physics. 116, 1, p. 96-99

Cancer risk from exposure to alpha emitters: a view from the ICRP

Tirmarche, M., Laurier, D. & Wakeford, R., 2019, In: BIO Web of Conferences. 14, 04002

Construction, Validation and Sensitivity Analyses of a Job Exposure Matrix for Early Plutonium Workers at the Sellafield Nuclear Site, United Kingdom

de Vocht, F., Riddell, A., Wakeford, R., Liu, H., MacGregor, D., Wilson, C., Peace, M., O'Hagan, J. & Agius, R., 2019, In: Radiation Research. 191, 1, p. 60-66 7 p.

The growing importance of radiation worker studies

Wakeford, R., 28 Aug 2018, In: British Journal of Cancer. 119, 5, p. 527-529 3 p.

UN Scientific Committee launches a new evaluation of thyroid cancer data in regions affected by the Chernobyl accident

Wakeford, R., Jun 2018, In: Journal of Radiological Protection. 38, 2, p. 876-877

An Assessment of Radiation-Associated Risks of Mortality from Circulatory Disease in the Cohorts of Mayak and Sellafield Nuclear Workers

Azizova, T. V., Batistatou, E., Grigorieva, E. S., McNamee, R., Wakeford, R., Liu, H., de Vocht, F. & Agius, R., 1 Mar 2018, In: Radiation Research. 189, 4, p. 371-388 18 p.

Comment on "Indoor terrestrial gamma dose rate mapping in France: A case study using two different geostatistical models" by Warnery et al. (J. Environ. Radioact. 2015, 139, 140–148)

Kendall, G. M., Little, M. P. & Wakeford, R., Feb 2018, In: Journal of Environmental Radioactivity. 182, p. 172-173

Implications of recent epidemiologic studies for the linear nonthreshold model and radiation protection.

Shore, R., Beck, H., Boice, J. D., Caffrey, E., Davis, S., Grogan, H., Mettler, F., Preston, J., Till, J., Wakeford, R., Walsh, L. & Dauer, L., 2018, In: Journal of Radiological Protection. 38, 3, p. 1217-1233

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

Little, M. & Wakeford, R., 2018, In: The Lancet. Haematology. 5, 8, p. e346-e358

Modelling the bimodal distribution of indoor gamma-ray dose-rates in Great Britain

Kendall, G. M., Chernyavskiy, P., Appleton, J. D., Miles, J. C. H., Wakeford, R., Athanson, M., Vincent, T. J., Mccoll, N. P. & Little, M. P., 2018, In: Radiation and Environmental Biophysics. 57, 4, p. 321-347

NCRP Commentary No. 27: Epidemiologic Studies for the Linear-Nonthreshold Model and Radiation Protection

Shore, R. E., Dauer, L. T., Beck, H. L., Caffrey, E. A., Davis, S., Grogan, H. A., Hyer, R. N., Metter, F. A., Preston, R. J., Till, J. E., Wakeford, R., Walsh, L. & Vetter, R. J., 2018, Bethesda, MD, USA: National Council on Radiation Protection and Measurements.

William Jackson ('Jack') Schull (1922–2017)

Wakeford, R., 18 Dec 2017, In: Journal of Radiological Protection. 37, 4, p. 957-959

Proceedings of the seminar on comparative assessment of the environmental impact of radionuclides released during three major nuclear accidents: Kyshtym, Windscale, Chernobyl (October 1990)

Wakeford, R., Dec 2017, In: Journal of Radiological Protection. 37, 4, p. 960

A double diamond anniversary: Kyshtym and Windscale: the nuclear accidents of 1957

Wakeford, R., 11 Sept 2017, In: Journal of Radiological Protection. 37, 3, p. E7-E13

World Association of Medical Editors (WAME) statement on 'Predatory Journals'

Wakeford, R., 11 Sept 2017, In: Journal of Radiological Protection. 37, 3, p. 811

Assessing the reliability of dose coefficients for exposure to radioiodine by members of the public, accounting for dosimetric and risk model uncertainties

Puncher, M., Zhang, W., Harrison, J. & Wakeford, R., 6 Jun 2017, In: Journal of Radiological Protection. 37, 2, p. 506-526 21 p.

Reply to Comment on 'A geographical study of thyroid cancer incidence in north-west England following the Windscale nuclear reactor fire of 1957'

McNally, R., Wakeford, R., James, P. W., Basta, N., Alston, R., Pearce, M. & Elliott, A. T., 6 Jun 2017, In: Journal of Radiological Protection. 37, 2, p. 553-554 2 p.

Academies outline principles of good science publishing

Wakeford, R., 2017, In: Journal of Radiological Protection. 37, p. 312-315

A restatement of the natural science evidence base concerning the health effects of low-level ionizing radiation

McLean, A., Adlen, E., Cardis, E., Elliott, A. T., Goodhead, D., Harms-Ringdahl, M., Hendry, J., Hoskin, P., Jeggo, P., Mackay, D., Muirhead, C., Shepherd, J., Shore, R., Thomas, G., Wakeford, R. & Godfray, C., 2017, In: Proceedings of the Royal Society B: Biological Sciences. 284, 7 p., 20171070.

UNSCEAR 2016 Report, Annex C: Biological effects of selected internal emitters-Tritium

Harrison, J. & Wakeford, R., 2017, United Nations. 359 p. (United Nations Scientific Committee on the Effects of Atomic Radiation)

Spatial prediction of naturally occurring gamma radiation in Great Britain

Chernyavskiy, P., Kendall, G. M., Wakeford, R. & Little, M. P., Nov 2016, In: Journal of Environmental Radioactivity. 164, p. 300-311

Variation with socioeconomic status of indoor radon levels in Great Britain: The less affluent have less radon

Kendall, G. M., Miles, J. C. H., Rees, D., Wakeford, R., Bunch, K. J., Vincent, T. J. & Little, M. P., Nov 2016, In: Journal of Environmental Radioactivity. 164, p. 84-90

Committee on Medical Aspects of Radiation in the Environment (COMARE): COMARE Seventeenth Report

Elliott, A., Gibson, C. & Wakeford, R., 30 Sept 2016, Public Health England. 190 p.

Re: Thyroid cancer among young people in Fukushima

Wakeford, R., May 2016, In: Epidemiology. 27, 3, p. e20-e21

Measurement of Fukushima-related radioactive contamination in aquatic species

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Dose classification -- Reply

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Activities

Chairman's Introduction

Wakeford, R. (Speaker)
29 Nov 2022

Radiation Epidemiology – Where Do We Stand Now?

Wakeford, R. (Speaker)
9 Nov 2022

What has been learnt from epidemiological studies of radiation workers?

Wakeford, R. (Speaker)
6 Sept 2022

Master of Ceremonies

Wakeford, R. (Speaker)
22 Aug 2022 → 26 Aug 2022

Effects of radiation exposure on offspring and next generations

Wakeford, R. (Speaker)
2 Jun 2022

Risk of cancer following low-level radiation exposure in utero or during childhood.

Wakeford, R. (Speaker)
20 Apr 2022

Reflections on low-level radiation exposure

Wakeford, R. (Speaker)
27 Mar 2022

In utero exposure (with an emphasis on low doses)

Wakeford, R. (Speaker)
16 Nov 2021

Cardiovascular disease following low-level exposure to radiation – some issues

Wakeford, R. (Speaker)
3 Oct 2021

Master of Ceremonies

Wakeford, R. (Speaker)

23 Aug 2021 → 27 Aug 2021

Epidemiological studies of tritium exposure

Wakeford, R. (Speaker)

16 Jun 2021

Intrauterine irradiation – historical context and epidemiological studies

Wakeford, R. (Speaker)

3 Feb 2021

Overview of epidemiological studies of workers: opportunities, expectations and limitations

Wakeford, R. (Speaker)

20 Jan 2021

Cancer risks after radiation exposure of children – overview of epidemiological studies

Wakeford, R. (Speaker)

1 Dec 2020

What Can We Learn from Epidemiology About the Effects of Dose Rate, Radiation Quality and Internal Exposures?

Wakeford, R. (Speaker)

18 Nov 2020

Medical Imaging– The Future of Epidemiological Research

Wakeford, R. (Speaker)

20 Oct 2020

Cardiovascular disease following low-level exposure to radiation

Wakeford, R. (Speaker)

18 Oct 2020

Radiation Risk Issues and their Potential Impact on Radiological Protection

Wakeford, R. (Speaker)

25 Jun 2020

Controversies and Challenges of the Linear No-Threshold (LNT) Model

Wakeford, R. (Speaker)

15 Oct 2019

The LNT Model and Cancer Risks at Low Doses and Low Dose-rates

Wakeford, R. (Speaker)

18 Sept 2019

Potential Risks of Using LNT for Radiological Protection

Wakeford, R. (Speaker)

25 Aug 2019

Master of Ceremonies

Wakeford, R. (Speaker)

19 Aug 2019 → 23 Aug 2019

Understanding Low-dose and Low-dose-rate Risks

Wakeford, R. (Speaker)

29 May 2019

Radiation Risk Estimation for Protection Purposes

Wakeford, R. (Speaker)
28 May 2019

Risk Estimates from Studies of Low Doses and Low Dose Rates

Wakeford, R. (Speaker)
1 Apr 2019

The epidemiology of tritium

Wakeford, R. (Speaker)
27 Mar 2019

Radiation Effects from Medical Applications – Diagnostics

Wakeford, R. (Speaker)
24 Jan 2019

Doses and Effects After the Fukushima Accident

Wakeford, R. (Speaker)
23 Jan 2019

Stochastic, Long-term Medical Effects and Risks of Ionising Radiation

Wakeford, R. (Speaker)
11 Oct 2018

Master of Ceremonies

Wakeford, R. (Speaker)
20 Aug 2018 → 24 Aug 2018

Epidemiological Evidence of Cancer Risks Following Exposure to Ionising Radiation in Childhood

Wakeford, R. (Speaker)
5 Jun 2018

The 1957 Windscale Nuclear Reactor Accident

Wakeford, R. (Speaker)
25 May 2018

The 2018 COGER Lecture. My journey to, and through, radiation epidemiology

Wakeford, R. (Speaker)
12 Apr 2018

Irradiation in utero and Subsequent Cancer Risk

Wakeford, R. (Speaker)
22 Mar 2018

Ionizing radiation in the workplace

Wakeford, R. (Speaker)
1 Mar 2018

The Compensation Scheme for Nuclear Industry Workers in the United Kingdom

Wakeford, R. (Speaker)
13 Feb 2018

Radon and Other Internal Emitters

Wakeford, R. (Speaker)

1 Nov 2017 → ...

Stochastic, Long-term Medical Effects and Risks of Ionising Radiation

Wakeford, R. (Speaker)

5 Oct 2017

The 60th Anniversary of the 1957 Windscale Nuclear Reactor Accident

Wakeford, R. (Speaker)

19 Sept 2017

The 1957 Windscale Nuclear Reactor Accident

Wakeford, R. (Speaker)

25 May 2017

2017 Dunster Lecture -- What do we know about low-level radiation risks?

Wakeford, R. (Speaker)

16 May 2017

Effective dose as an indicator of risk

Wakeford, R. (Speaker)

10 Nov 2016

Review of Studies of Leukaemia Risk in the Vicinity of Nuclear Installations

Wakeford, R. (Speaker)

10 Nov 2016

Studies of Cancer Risk Associated with Natural Background Radiation in Europe

Wakeford, R. (Speaker)

10 Nov 2016

Occupational studies -- discussion

Wakeford, R. (Speaker)

15 Oct 2016

Emerging Evidence of Non-cancer Health Effects from Radiation Exposure

Wakeford, R. (Speaker)

5 Oct 2016

Insufficient Evidence for Low-level Radiation Increasing the Risk of Circulatory Disease

Wakeford, R. (Speaker)

21 Sept 2016

Some current issues in radiation risk assessment

Wakeford, R. (Speaker)

12 Jul 2016

For Now, LNT is the Prudent Option

Wakeford, R. (Speaker)

20 Jun 2016

Chernobyl, 30 Years On -- Health Effects, Lessons to be Learnt

Wakeford, R. (Speaker)

10 May 2016

Thyroid cancer: incidence, prevention possibilities and early detection options (screening – lessons learnt from Fukushima accident)

Wakeford, R. (Speaker)
25 Apr 2016

Low-level radiation exposure

Wakeford, R. (Speaker)
19 Oct 2015

Natural Background Radiation – Health Effects

Wakeford, R. (Speaker)
21 May 2015

Radiation Risk Estimates, and Whence They Come

Wakeford, R. (Speaker)
15 Jan 2015

Evidence of cardiovascular disease risk in the workplace

Wakeford, R. (Speaker)
2 Dec 2014

Introduction to the Accident at Fukushima Dai-ichi Nuclear Power Station

Wakeford, R. (Speaker)
18 Nov 2014

Childhood Leukaemia and Nuclear Installations

Wakeford, R. (Speaker)
1 Nov 2014 → ...

Childhood Leukaemia Near Nuclear Installations: Recent Results and Perspectives

Wakeford, R. (Speaker)
6 Oct 2014

Considerations for NAS Pilot Study

Wakeford, R. (Speaker)
3 Apr 2014

An approach to compensation for radiation-linked diseases – an example from the nuclear industry in the UK

Wakeford, R. (Speaker)
13 Feb 2014

An approach to compensation for radiation-linked diseases – an example from the nuclear industry in the UK

Wakeford, R. (Speaker)
11 Feb 2014

Low-level Radiation Epidemiology – Where We Are Now and Where We Might Be Going

Wakeford, R. (Speaker)
5 Dec 2013

The WHO Fukushima Reports

Wakeford, R. (Speaker)
15 Oct 2013

The Accident at the Fukushima Dai-ichi Nuclear Power Station, March 2011

Wakeford, R. (Speaker)
12 Oct 2013

The Approach to Risk Estimation (and its Relationship with Effective Dose)

Wakeford, R. (Speaker)
2 Sept 2013

Childhood Leukaemia and Natural Background Radiation: Context and Dosimetric Aspects

Wakeford, R. (Speaker)
21 Aug 2013

Epidemiology at Low Doses – Antenatal and CT Scan Exposures

Wakeford, R. (Speaker)
1 Aug 2013 → 31 Aug 2014

Natural background radiation

Wakeford, R. (Speaker)
1 Aug 2013 → 31 Aug 2014

Nuclear Industry Worker Studies

Wakeford, R. (Speaker)
1 Aug 2013 → 31 Aug 2014

Health Effects of Low-Level Exposure to Radiation

Wakeford, R. (Speaker)
3 Jun 2013

The BIG Accidents

Wakeford, R. (Speaker)
24 May 2013

Risk Perception in Radiation Protection

Wakeford, R. (Speaker)
12 Apr 2013

Epidemiology and Radiological Protection – How Current Understanding and Standards were Developed

Wakeford, R. (Speaker)
1 Mar 2013 → 1 Mar 2015

Epidemiology and Radiological Protection – recent developments

Wakeford, R. (Speaker)
1 Mar 2013 → 1 Mar 2015

The risk of cancer from low-level exposure to radiation – some recent results and future prospects

Wakeford, R. (Speaker)
10 Dec 2012

The risk of cancer following exposure in utero to ionising radiation

Wakeford, R. (Speaker)
6 Dec 2012

2012 Lane Lecture – Risks from Exposure to Ionising Radiation – the Contribution of Occupational Studies

Wakeford, R. (Speaker)

22 Nov 2012

The Fukushima Dai-ichi Nuclear Power Station Accident

Wakeford, R. (Speaker)

26 Oct 2012

The Risk of Cancer Following Low-level Exposure to Ionising Radiation – Estimates and their Accuracy

Wakeford, R. (Speaker)

16 Oct 2012

The Fukushima Dai-ichi Nuclear Power Station Accident – Causes and Consequences

Wakeford, R. (Speaker)

9 Oct 2012

Risk Models for Radiation-induced Leukaemia

Wakeford, R. (Speaker)

14 Sept 2012

A record-based case-control study of natural background radiation and the incidence of childhood leukaemia and other cancers in Great Britain during 1980-2006

Wakeford, R. (Speaker)

12 Sept 2012

Epidemiological Studies on Natural Sources of Radiation and Cancer Risk

Wakeford, R. (Speaker)

12 Sept 2012

The Risk of Cancer Following Low-level Exposure to Ionising Radiation – What Can Epidemiology Tell Us?

Wakeford, R. (Speaker)

4 Sept 2012

Reconstructing the Radiation Doses Received from the Fukushima Dai-ichi Nuclear Power Station Accident

Wakeford, R. (Speaker)

3 Jul 2012

Risks to Health from the Fukushima Dai-ichi Nuclear Power Station Accident

Wakeford, R. (Speaker)

26 Jun 2012

Recommendations for Research on Childhood Leukaemia by COMARE

Wakeford, R. (Speaker)

14 Jun 2012

Ionising Radiation and Childhood Leukaemia

Wakeford, R. (Speaker)

13 Jun 2012

Stakeholder and Public Perceptions

Wakeford, R. (Speaker)

17 May 2012

Radioactivity, Radiation and Health, with an Emphasis on the Impact of the Chernobyl and Fukushima Accidents

Wakeford, R. (Speaker)

16 May 2012

Ionising radiation and childhood cancer – an overview

Wakeford, R. (Speaker)

26 Apr 2012

Fukushima – Where Are We Now, One Year On?

Wakeford, R. (Speaker)

6 Mar 2012

The risk of childhood leukaemia and other childhood cancers following low-level exposure to ionising radiation

Wakeford, R. (Speaker)

2 Mar 2012

The Present Position in the UK and the Rest of Europe

Wakeford, R. (Speaker)

15 Feb 2012

An Overview of the Role of Radiation Worker Epidemiology in Radiological Protection

Wakeford, R. (Speaker)

13 Feb 2012

Overview on Risks following Radiation Exposure in utero and in Childhood

Wakeford, R. (Speaker)

15 Dec 2011

Chernobyl & Fukushima – Communication Lessons Learnt and to be Learnt

Wakeford, R. (Speaker)

6 Dec 2011

Childhood leukaemia and ionising radiation

Wakeford, R. (Speaker)

2 Nov 2011

Cancer Risks from Environmental Exposures to Radiation

Wakeford, R. (Speaker)

1 Nov 2011 → ...

Radiation Effects – Modulating Factors and Risk Assessment – An Overview

Wakeford, R. (Speaker)

25 Oct 2011

Chornobyl health effects: what do we know after 25 years?

Wakeford, R. (Speaker)

15 Oct 2011

Cancer risk modelling and radiological protection

Wakeford, R. (Speaker)

11 Sept 2011

The risk of cancer from low-level exposure to radiation -- the epidemiological evidence

Wakeford, R. (Speaker)

1 Sept 2011

Chernobyl effects: what do we know after 25 years? A review of the epidemiological evidence

Wakeford, R. (Speaker)

29 Aug 2011

Overview of Studies Outside the USA

Wakeford, R. (Speaker)

2 Feb 2011

Radiation Exposures and Epidemiology of Radiation Risk

Wakeford, R. (Speaker)

19 Nov 2010

2010 Ian McCallum Memorial Lecture --What Can Occupational Exposure to Ionising Radiation Tell Us About Risk?

Wakeford, R. (Speaker)

7 Jun 2010

The Risk of Exposure to Low-level Radiation

Wakeford, R. (Speaker)

1 Jun 2010

The 1957 Windscale Nuclear Reactor Accident

Wakeford, R. (Speaker)

26 Apr 2010

Chernobyl & Epidemiology

Wakeford, R. (Speaker)

14 Apr 2010

Nuclear Power – a Phoenix Rising

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11 Mar 2010

The Windscale Nuclear Reactor Accident – 50 Years of Investigations

Wakeford, R. (Speaker)

16 Feb 2010

Radiation epidemiology

Wakeford, R. (Speaker)

1 Jan 2010 → ...

Prenatal Exposure to Ionizing Radiation: What We Know Today

Wakeford, R. (Speaker)

17 Dec 2009

In utero exposure to radiation

Wakeford, R. (Speaker)

15 Dec 2009

Occupational exposure to ionising radiation, emphasis on IARC 15-country and UK NRRW-3 studies

Wakeford, R. (Speaker)

24 Nov 2009

Ionising Radiation Epidemiology of Childhood Leukaemia

Wakeford, R. (Speaker)

3 Nov 2009

Exposure to internal emitters – are we underestimating the risk?

Wakeford, R. (Speaker)

16 Oct 2009

Epidemiological studies of childhood leukaemia after radiation exposure (excluding nuclear power plant studies)

Wakeford, R. (Speaker)

2 Oct 2009

Recent results from epidemiology

Wakeford, R. (Speaker)

24 Sept 2009

Natural Background Ionising Radiation and Childhood Leukaemia

Wakeford, R. (Speaker)

3 Jul 2009

Risks from Exposure to Ionizing Radiation

Wakeford, R. (Speaker)

24 Jun 2009

Childhood Leukaemia Following Exposure to Ionising Radiation

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8 Jun 2009

Radiation Scares and the Role of Journals

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4 Jun 2009

Epidemiology – a Current View

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21 Apr 2009

Chairman's Introduction: Sources of Tritium

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Nuclear workers – the 15-country study

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Epidemiological Evidence for Radiation-induced Circulatory Diseases – Non-occupational Exposure

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25 Nov 2008

Low-dose Ionising Radiation and Cancer – Myth or Concern?

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7 Oct 2008

Current Occupational and Environmental Issues in Ionising Radiation Epidemiology

Wakeford, R. (Speaker)

7 Jul 2008

Radiation in the workplace

Wakeford, R. (Speaker)
5 Jun 2008

The Windscale Nuclear Reactor Accident – 50 Years of Investigations

Wakeford, R. (Speaker)
14 May 2008

Childhood Leukaemia Following Antenatal or Postnatal Exposure to X-rays for Diagnostic Purposes

Wakeford, R. (Speaker)
6 May 2008

Risks from Occupational Exposure to Ionising Radiation, with Specific Reference to UK Workers

Wakeford, R. (Speaker)
31 Mar 2008

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8 Jan 2008

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The Compensation Scheme for Nuclear Industry Workers in the United Kingdom

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19 Sept 2007

Risks from low-level radiation -- the epidemiological evidence

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Effects of low-level radiation -- in utero and occupational studies

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Childhood leukaemia and nuclear power

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The Epidemiology of Leukaemia and other Cancers in Childhood after Exposure to Ionising Radiation

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21 Sept 2004

The risk to health from exposure to low doses of ionising radiation

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24 Sept 2003

Leukaemia clusters around Sellafield and Dounreay (dosimetry and epidemiology)

Wakeford, R. (Speaker)

4 Dec 2002

Epidemiological studies of occupational exposure to ionising radiation

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27 Aug 2002

Radiation hazards (and radiation accidents)

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Epidemiological studies of nuclear industry workers in European countries

Wakeford, R. (Speaker)

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Malignant diseases near nuclear facilities – epidemiological studies conducted in North America

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10 Jul 1996

Leukaemia "clusters" and nuclear installations with special reference to Dounreay

Wakeford, R. (Speaker)

21 Jun 1989

Prizes

Emeritus Member of the Editorial Board of the Journal of Radiological Protection

Wakeford, R. (Recipient), 2022

Founder's Prize

Wakeford, R. (Recipient), 1994

Honorary Fellow of the Society for Radiological Protection

Wakeford, R. (Recipient), 2012

Warren K. Sinclair Medal

Wakeford, R. (Recipient), 24 Mar 2025

Press/Media

Battle of the Elements winner revealed, Chernobyl revisited, and the quest for metallic hydrogen

Wakeford, R.

11/07/19

1 Media contribution

BBC NEWS ONLINE: Chernobyl: The end of a three-decade experiment

Wakeford, R.

14/02/19

1 Media contribution

Chernobyl's legacy and why assessing radiation risk is so difficult

Wakeford, R.

9/07/19

1 Media contribution

Commentator on Ceremony in Hiroshima to Mark 70th Anniversary of Atomic-bombing

Wakeford, R.

5/08/15

1 Media contribution

Comment on Radiation Exposure after Fukushima Nuclear Accident

Wakeford, R.

28/03/11

1 Media contribution

Fukushima - disaster or distraction?

Wakeford, R.

18/03/11

1 Media contribution

Health Effects of the Atomic-bombings of Japan

Wakeford, R.

6/08/15

1 Media contribution

Health Effects of the Chernobyl Accident

Wakeford, R.

28/04/16

1 Media contribution

I NEWS: Nuclear power is safe and gets cheaper the more we embrace it – we need to get past its PR problem

Livens, F. & Wakeford, R.

13/04/22

1 Media contribution

Lessons for Japan from the Chernobyl catastrophe

Wakeford, R.

16/03/11

1 Media contribution

Low dose radiation 'harms heart'

Wakeford, R.

22/10/09

1 Media contribution

Natural Background Radiation: Health Effects

Wakeford, R.

21/05/15

1 Media contribution

Q&A: Health effects of radiation exposure

Wakeford, R.

21/07/11

1 Media contribution

Statement by Professor Richard Wakeford on the Consequences for Health of the Fukushima Dai-ichi Nuclear Power Station Accident

Wakeford, R.

22/02/12

1 Media contribution

Thyroid Cancer After Fukushima Accident

Wakeford, R.

18/03/16

1 Media contribution

What do we know about low-level radiation risks?

Wakeford, R.

16/05/17

1 Media contribution

Windscale fallout underestimated

Wakeford, R.

6/10/07

1 Media contribution

Windscale fallout 'worse than thought'

Wakeford, R.

7/10/07

1 Media contribution

Windscale Piles: Cockcroft's Follies avoided nuclear disaster

Wakeford, R.

4/11/14

1 Media contribution

Windscale radiation 'doubly dangerous'

Wakeford, R.

7/10/07

1 Media contribution