Roger W Howell

List of Publications by Year
in descending order

103 papers	4,040 citations	117453 34 h-index	128067 60 g-index
108 all docs	108 docs citations	108 times ranked	3252 citing authors

#	Article	IF	Citations
1	MIRD Pamphlet No. 27: MIRDcell V3, a Revised Software Tool for Multicellular Dosimetry and Bioeffect Modeling. Journal of Nuclear Medicine, 2022, 63, 1441-1449.	2.8	16
2	Predicting response of micrometastases with MIRDcell V3: proof of principle with 225Ac-DOTA encapsulating liposomes that produce different activity distributions in tumor spheroids. European Journal of Nuclear Medicine and Molecular Imaging, 2022, 49, 3989-3999.	3.3	4
3	Overview of the First NRG Oncologyâ€"National Cancer Institute Workshop on Dosimetry of Systemic Radiopharmaceutical Therapy. Journal of Nuclear Medicine, 2021, 62, 1133-1139.	2.8	5
4	Acquired radioresistance in cancer associated fibroblasts is concomitant with enhanced antioxidant potential and DNA repair capacity. Cell Communication and Signaling, 2021, 19, 30.	2.7	27
5	Radium-223â€"Induced Bystander Effects Cause DNA Damage and Apoptosis in Disseminated Tumor Cells in Bone Marrow. Molecular Cancer Research, 2021, 19, 1739-1750.	1.5	13
6	Modeling bystander effects that cause growth delay of breast cancer xenografts in bone marrow of mice treated with radium-223. International Journal of Radiation Biology, 2021, 97, 1217-1228.	1.0	6
7	Radium-223 dichloride causes transient changes in natural killer cell population and cytotoxic function. International Journal of Radiation Biology, 2021, 97, 1417-1424.	1.0	0
8	ICRU REPORT 96, Dosimetry-Guided Radiopharmaceutical Therapy. Journal of the ICRU, 2021, 21, 1-212.	6.0	52
9	Dose-Dependent Growth Delay of Breast Cancer Xenografts in the Bone Marrow of Mice Treated with²²³Ra: The Role of Bystander Effects and Their Potential for Therapy. Journal of Nuclear Medicine, 2020, 61, 89-95.	2.8	34
10	Advancements in the use of Auger electrons in science and medicine during the period 2015â€"2019. International Journal of Radiation Biology, 2020, , 1-26.	1.0	14
11	A preliminary study on treatment of human breast cancer xenografts with a cocktail of paclitaxel, doxorubicin, and 131I-anti-epithelial cell adhesion molecule (9C4). World Journal of Nuclear Medicine, 2019, 18, 18-24.	0.3	4
12	Design and testing of a microcontroller that enables alpha particle irradiators to deliver complex dose rate patterns. Physics in Medicine and Biology, 2018, 63, 245022.	1.6	2
13	A model for optimizing delivery of targeted radionuclide therapies into resection cavity margins for the treatment of primary brain cancers. Biomedical Physics and Engineering Express, 2017, 3, 035005.	0.6	15
14	Cellular Response to Exponentially Increasing and Decreasing Dose Rates: Implications for Treatment Planning in Targeted Radionuclide Therapy. Radiation Research, 2017, 188, 221.	0.7	20
15	Vitamins A, C, and E May Reduce Intestinal 210Po Levels after Ingestion. Health Physics, 2016, 111, 52-57.	0.3	0
16	Physical Considerations for Understanding Responses of Biological Systems to Low Doses of Ionizing Radiation. Health Physics, 2016, 110, 283-286.	0.3	9
17	High Levels of Dietary Supplement Vitamins A, C and E are Absorbed in the Small Intestine and Protect Nutrient Transport Against Chronic Gamma Irradiation. Radiation Research, 2015, 184, 470.	0.7	8
18	Low-dose energetic protons induce adaptive and bystander effects that protect human cells against DNA damage caused by a subsequent exposure to energetic iron ions. Journal of Radiation Research, 2015, 56, 502-508.	0.8	41

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19	The Advantage of Antibody Cocktails for Targeted Alpha Therapy Depends on Specific Activity. Journal of Nuclear Medicine, 2014, 55, 2012-2019.	2.8	17
20	Redefining Relative Biological Effectiveness in the Context of the EQDX Formalism: Implications for Alpha-Particle Emitter Therapy. Radiation Research, 2014, 181, 90-98.	0.7	40
21	MIRD Pamphlet No. 25: MIRDcell V2.0 Software Tool for Dosimetric Analysis of Biologic Response of Multicellular Populations. Journal of Nuclear Medicine, 2014, 55, 1557-1564.	2.8	92
22	Survival of tumor and normal cells upon targeting with electronâ€emitting radionuclides. Medical Physics, 2013, 40, 014101.	1.6	9
23	MIRD Pamphlet No. 24: Guidelines for Quantitative ¹³¹I SPECT in Dosimetry Applications. Journal of Nuclear Medicine, 2013, 54, 2182-2188.	2.8	125
24	RadNuc: A graphical user interface to deliver dose rate patterns encountered in nuclear medicine with a 137Cs irradiator. Nuclear Medicine and Biology, 2013, 40, 304-311.	0.3	8
25	Flow Cytometryâ€Based Quantification of Cell Proliferation in the Mixed Cell Coâ€Culture. Current Protocols in Cytometry, 2013, 63, Unit9.40.	3.7	3
26	Nontargeted Stressful Effects in Normal Human Fibroblast Cultures Exposed to Low Fluences of High Charge, High Energy (HZE) Particles: Kinetics of Biologic Responses and Significance of Secondary Radiations. Radiation Research, 2013, 179, 444.	0.7	20
27	SU-E-J-184: A Dose-Independent Relative Biological Effect Quantity for Targeted Alpha-Particle Therapy in the EQD2 Formalism. Medical Physics, 2013, 40, 193-193.	1.6	0
28	Flow cytometry-assisted Monte Carlo simulation predicts clonogenic survival of cell populations with lognormal distributions of radiopharmaceuticals and anticancer drugs. International Journal of Radiation Biology, 2012, 88, 286-293.	1.0	11
29	Induction of lethal bystander effects in human breast cancer cell cultures by DNA-incorporated Iodine-125 depends on phenotype. International Journal of Radiation Biology, 2012, 88, 1028-1038.	1.0	19
30	Bioeffect modeling and equieffective dose concepts in radiation oncology â€“ Terminology, quantities and units. Radiotherapy and Oncology, 2012, 105, 266-268.	0.3	185
31	A method to predict response of cell populations to cocktails of chemotherapeutics and radiopharmaceuticals: Validation with daunomycin, doxorubicin, and the alpha particle emitter 210Po. Nuclear Medicine and Biology, 2012, 39, 954-961.	0.3	11
32	Monte Carlo simulation of irradiation and killing in three-dimensional cell populations with lognormal cellular uptake of radioactivity. International Journal of Radiation Biology, 2012, 88, 115-122.	1.0	21
33	Technical Note: Contrast solution density and cross section errors in inhomogeneity-corrected dose calculation for breast balloon brachytherapy. Medical Physics, 2012, 40, 011703.	1.6	1
34	Alpha Particles Induce Apoptosis through the Sphingomyelin Pathway. Radiation Research, 2011, 176, 434-446.	0.7	20
35	PATIENT EXPOSURES AND CONSEQUENT RISKS FROM NUCLEAR MEDICINE PROCEDURES. Health Physics, 2011, 100, 313-317.	0.3	9
36	Marked changes in endogenous antioxidant expression precede vitamin A-, C-, and E-protectable, radiation-induced reductions in small intestinal nutrient transport. Free Radical Biology and Medicine, 2011, 50, 55-65.	1.3	12

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37	Lognormal Distribution of Cellular Uptake of Radioactivity: Monte Carlo Simulation of Irradiation and Cell Killing in 3-Dimensional Populations in Carbon Scaffolds. Journal of Nuclear Medicine, 2011, 52, 926-933.	2.8	20
38	Changes in Lognormal Shape Parameter Guide Design of Patient-Specific Radiochemotherapy Cocktails. Journal of Nuclear Medicine, 2011, 52, 642-649.	2.8	16
39	Managing Radiation Use in Medical Imaging: A Multifaceted Challenge. Radiology, 2011, 258, 889-905.	3.6	272
40	An Adoptive Transfer Method to Detect Low-Dose Radiation-Induced Bystander EffectsIn Vivo. Radiation Research, 2010, 173, 125-137.	0.7	15
41	Radiation-induced reductions in transporter mRNA levels parallel reductions in intestinal sugar transport. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 298, R173-R182.	0.9	13
42	Investigation of Adaptive Responses in Bystander Cells in 3D Cultures Containing Tritium-Labeled and Unlabeled Normal Human Fibroblasts. Radiation Research, 2010, 174, 216-227.	0.7	19
43	MIRD Pamphlet No. 22 (Abridged): Radiobiology and Dosimetry of Î±-Particle Emitters for Targeted Radionuclide Therapy. Journal of Nuclear Medicine, 2010, 51, 311-328.	2.8	385
44	Kilovoltage stereotactic radiosurgery for age-related macular degeneration: Assessment of optic nerve dose and patient effective dose. Medical Physics, 2009, 36, 3671-3681.	1.6	33
45	MIRD Commentary: Proposed Name for a Dosimetry Unit Applicable to Deterministic Biological Effectsâ€”The Barendsen (Bd). Journal of Nuclear Medicine, 2009, 50, 485-487.	2.8	31
46	Pharmacokinetic Analysis of Polyamide Nucleic-Acid-Cell Penetrating Peptide Conjugates Targeted against HIV-1 Transactivation Response Element. Oligonucleotides, 2008, 18, 277-286.	2.7	41
47	Meeting overview. International Journal of Radiation Biology, 2008, 84, 957-958.	1.0	1
48	Lognormal Distribution of Cellular Uptake of Radioactivity: Statistical Analysis of Î±-Particle Track Autoradiography. Journal of Nuclear Medicine, 2008, 49, 1009-1016.	2.8	13
49	Auger processes in the 21st century. International Journal of Radiation Biology, 2008, 84, 959-975.	1.0	89
50	Dosimetry characterization of a multibeam radiotherapy treatment for ageâ€related macular degeneration. Medical Physics, 2008, 35, 5151-5160.	1.6	29
51	WE-D-351-03: NURBS-Based Head and Eye Dosimetry Models for Ocular Radiosurgery. Medical Physics, 2008, 35, 2946-2946.	1.6	0
52	Biological Response to Nonuniform Distributions of210Po in Multicellular Clusters. Radiation Research, 2007, 168, 332-340.	0.7	16
53	Elevated Blood Lead Concentrations and Vitamin D Deficiency in Winter and Summer in Young Urban Children. Environmental Health Perspectives, 2007, 115, 630-635.	2.8	51
54	Concomitant quantification of targeted drug delivery and biological response in individual cells. BioTechniques, 2007, 43, 64-71.	0.8	15

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55	Proteome analysis of proliferative response of bystander cells adjacent to cells exposed to ionizing radiation. Proteomics, 2007, 7, 2000-2008.	1.3	15
56	WEâ€Dâ€AUDâ€05: Clinical Implementation of Portal Dosimetry â€" Establishing Action Levels. Medical Physics, 2007, 34, 2601-2601.	1.6	0
57	Adaptive Responses to Low-Dose/Low-Dose-Rate Î³ Rays in Normal Human Fibroblasts: The Role of Growth Architecture and Oxidative Metabolism. Radiation Research, 2006, 166, 849-857.	0.7	106
58	Challenges and progress in predicting biological responses to incorporated radioactivity. Radiation Protection Dosimetry, 2006, 122, 521-527.	0.4	17
59	Bystander responses in three-dimensional cultures containing radiolabelled and unlabelled human cells. Radiation Protection Dosimetry, 2006, 122, 252-255.	0.4	16
60	Log normal distribution of cellular uptake of radioactivity: implications for biologic responses to radiopharmaceuticals. Journal of Nuclear Medicine, 2006, 47, 1049-58.	2.8	48
61	Bystander cell proliferation is modulated by the number of adjacent cells that were exposed to ionizing radiation. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2005, 66A, 62-70.	1.1	30
62	Modeling Multicellular Response to Nonuniform Distributions of Radioactivity: Differences in Cellular Response to Self-Dose and Cross-Dose. Radiation Research, 2005, 163, 216-221.	0.7	20
63	Proliferative response of bystander cells adjacent to cells with incorporated radioactivity. Cytometry, 2004, 60A, 155-164.	1.8	35
64	Characterization of cell-cycle progression and growth of WB-F344 normal rat liver epithelial cells following gamma-ray exposure. Cytometry, 2004, 61A, 134-141.	1.8	11
65	A Multi-port Low-Fluence Alpha-Particle Irradiator: Fabrication, Testing and Benchmark Radiobiological Studies. Radiation Research, 2004, 161, 732-738.	0.7	46
66	Isolating effects of microscopic nonuniform distributions of (131)I on labeled and unlabeled cells. Journal of Nuclear Medicine, 2004, 45, 1050-8.	2.8	25
67	Susceptibility of the human pathogenic fungi Cryptococcus neoformans and Histoplasma capsulatum to gamma-radiation versus radioimmunotherapy with alpha- and beta-emitting radioisotopes. Journal of Nuclear Medicine, 2004, 45, 313-20.	2.8	40
68	Flow cytometry as a strategy to study radiation-induced bystander effects in co-culture systems. Cytometry, 2003, 54A, 1-7.	1.8	34
69	Cell proximity is a prerequisite for the proliferative response of bystander cells co-cultured with cells irradiated with ?-rays. Cytometry, 2003, 56A, 71-80.	1.8	63
70	Does metabolic radiolabeling stimulate the stress response? Gene expression profiling reveals differential cellular responses to internal beta vs. external gamma radiation. FASEB Journal, 2003, 17, 1470-1486.	0.2	30
71	When may a nonuniform distribution of 131I be considered uniform? An experimental basis for multicellular dosimetry. Journal of Nuclear Medicine, 2003, 44, 2019-26.	2.8	20
72	Role of lipid-soluble complexes in targeted tumor therapy. Journal of Nuclear Medicine, 2003, 44, 1293-300.	2.8	8

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73	Bystander effects caused by nonuniform distributions of DNA-incorporated 125I. Micron, 2002, 33, 127-132.	1.1	45
74	Free Radical-Initiated and Gap Junction-Mediated Bystander Effect due to Nonuniform Distribution of Incorporated Radioactivity in a Three-Dimensional Tissue Culture Model. Radiation Research, 2001, 155, 335-344.	0.7	142
75	Radiation Protection by Cysteamine against the Lethal Effects of Intracellularly Localized Auger Electron, a- and ÃŸ-Particle Emitting Radionuclides. Acta OncolÃ³gica, 2000, 39, 713-720.	0.8	11
76	Protection by DMSO against Cell Death Caused by Intracellularly Localized Iodine-125, Iodine-131 and Polonium-210. Radiation Research, 2000, 153, 416-427.	0.7	57
77	Evidence for Pronounced Bystander Effects Caused by Nonuniform Distributions of Radioactivity using a Novel Three-Dimensional Tissue Culture Model. Radiation Research, 1999, 152, 88.	0.7	106
78	Radioprotection against Lethal Damage Caused by Chronic Irradiation with Radionuclides In Vitro. Radiation Research, 1998, 150, 391.	0.7	14
79	Proliferation and the advantage of longer-lived radionuclides in radioimmunotherapy. Medical Physics, 1998, 25, 37-42.	1.6	33
80	Reply to "The Survival of Mouse Spermatogonia Exposed to Alpha Particles". Radiation Research, 1997, 147, 271.	0.7	1
81	Radiotoxicity of Gadolinium-148 and Radium-223 in Mouse Testes: Relative Biological Effectiveness of Alpha-Particle Emitters In Vivo. Radiation Research, 1997, 147, 342.	0.7	47
82	[125I/127I]IodoHoechst 33342:Â Synthesis, DNA Binding, and Biodistribution. Journal of Medicinal Chemistry, 1996, 39, 4804-4809.	2.9	71
83	Radioprotection by Dmso Against the Biological Effects of Incorporated Radionuclides in Vivo: Comparison with other radioprotectors and evidence for indirect action of Auger electrons. Acta OncolÃ³gica, 1996, 35, 901-907.	0.8	24
84	Calculation of Equivalent Dose for Auger Electron Emitting Radionuclides Distributed in Human Organs. Acta OncolÃ³gica, 1996, 35, 909-916.	0.8	14
85	Effects of a 1.5-Tesla Static Magnetic Field on Spermatogenesis and Embryogenesis in Mice. Investigative Radiology, 1996, 31, 586-590.	3.5	33
86	Relative biological effectiveness of 99m Tc radiopharmaceuticals. Medical Physics, 1994, 21, 1921-1926.	1.6	23
87	Simple isolation of polonium-210 from silver. Applied Radiation and Isotopes, 1994, 45, 637-638.	0.7	6
88	Dosimetry of Auger-electron-emitting radionuclides: Report No. 3 of AAPM Nuclear Medicine Task Group No. 6. Medical Physics, 1994, 21, 1901-1915.	1.6	128
89	bis-benzimidazole dyes, Hoechst 33258 and Hoechst 33342: Radioiodination, facile purification and subcellular distribution. Nuclear Medicine and Biology, 1994, 21, 641-647.	0.3	19
90	Radiotoxicity of Platinum-195m-Labeled trans-Platinum (II) in Mammalian Cells. Radiation Research, 1994, 140, 55.	0.7	49

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91	Relative Biological Effectiveness of Alpha-Particle Emitters In Vivo at Low Doses. Radiation Research, 1994, 137, 352.	0.7	35
92	Vitamins as Radioprotectors In Vivo. I. Protection by Vitamin C against Internal Radionuclides in Mouse Testes: Implications to the Mechanism of Damage Caused by the Auger Effect. Radiation Research, 1994, 137, 394.	0.7	29
93	Vitamins as Radioprotectors In Vivo II. Protection by Vitamin A and Soybean Oil against Radiation Damage Caused by Internal Radionuclides. Radiation Research, 1994, 139, 115.	0.7	41
94	Biological Effect of Lead-212 Localized in the Nucleus of Mammalian Cells: Role of Recoil Energy in the Radiotoxicity of Internal Alpha-Particle Emitters. Radiation Research, 1994, 140, 276.	0.7	37
95	Testicular and plasma ascorbic acid levels in mice following dietary intake: a high-performance liquid chromatographic analysis. Biomedical Applications, 1993, 614, 233-243.	1.7	42
96	[35S]cysteamine: Facile synthesis, in vivo biokinetics, and subcellular distribution. Nuclear Medicine and Biology, 1993, 20, 117-124.	0.3	2
97	On the Equivalent Dose for Auger Electron Emitters. Radiation Research, 1993, 134, 71.	0.7	45
98	Radiation spectra for Auger-electron emitting radionuclides: Report No. 2 of AAPM Nuclear Medicine Task Group No. 6. Medical Physics, 1992, 19, 1371-1383.	1.6	207
99	Induction of Sperm Head Abnormalities by Incorporated Radionuclides: Dependence on Subcellular Distribution, Type of Radiation, Dose Rate, and Presence of Radioprotectors. Radiation Research, 1991, 125, 89.	0.7	55
100	The Question of Relative Biological Effectiveness and Quality Factor for Auger Emitters Incorporated into Proliferating Mammalian Cells. Radiation Research, 1991, 128, 282.	0.7	58
101	Radiotoxicity of¹²⁵I-Iododeoxyuridine in Pre-implantation Mouse Embryos. International Journal of Radiation Biology, 1991, 60, 525-532.	1.0	11
102	Biological Consequence of Nuclear versus Cytoplasmic Decays of 125 I: Cysteamine as a Radioprotector against Auger Cascades in Vivo. Radiation Research, 1990, 124, 188.	0.7	42
103	Macroscopic dosimetry for radioimmunotherapy: Nonuniform activity distributions in solid tumors. Medical Physics, 1989, 16, 66-74.	1.6	114