Igor Shuryak

List of Publications by Year
in descending order

92	2,903	218592	189801
papers	citations	26 h-index	50 g-index

102	102	102	3381
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Far-UVC light (222â€‰nm) efficiently and safely inactivates airborne human coronaviruses. Scientific Reports, 2020, 10, 10285.	1.6	421
2	Far-UVC light: A new tool to control the spread of airborne-mediated microbial diseases. Scientific Reports, 2018, 8, 2752.	1.6	244
3	Cancer Risks After Radiation Exposure in Middle Age. Journal of the National Cancer Institute, 2010, 102, 1628-1636.	3.0	158
4	207-nm UV Lightâ€”A Promising Tool for Safe Low-Cost Reduction of Surgical Site Infections. II: In-Vivo Safety Studies. PLoS ONE, 2016, 11, e0138418.	1.1	112
5	High-dose and fractionation effects in stereotactic radiation therapy: Analysis of tumor control data from 2965 patients. Radiotherapy and Oncology, 2015, 115, 327-334.	0.3	110
6	Impact of Reduced Patient Life Expectancy on Potential Cancer Risks from Radiologic Imaging. Radiology, 2011, 261, 193-198.	3.6	101
7	Across the tree of life, radiation resistance is governed by antioxidant Mn ²⁺ , gauged by paramagnetic resonance. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9253-E9260.	3.3	94
8	Melanin is effective in protecting fast and slow growing fungi from various types of ionizing radiation. Environmental Microbiology, 2017, 19, 1612-1624.	1.8	86
9	A new view of radiation-induced cancer: integrating short- and long-term processes. Part II: second cancer risk estimation. Radiation and Environmental Biophysics, 2009, 48, 275-286.	0.6	75
10	Development of a high-throughput Î³-H2AX assay based on imaging flow cytometry. Radiation Oncology, 2019, 14, 150.	1.2	68
11	High Throughput Measurement of Î³H2AX DSB Repair Kinetics in a Healthy Human Population. PLoS ONE, 2015, 10, e0121083.	1.1	67
12	A new view of radiation-induced cancer: integrating short- and long-term processes. Part I: Approach. Radiation and Environmental Biophysics, 2009, 48, 263-274.	0.6	66
13	Minimizing second cancer risk following radiotherapy: current perspectives. Cancer Management and Research, 2015, 7, 1.	0.9	57
14	Biophysical Models of Radiation Bystander Effects: 1. Spatial Effects in Three-Dimensional Tissues. Radiation Research, 2007, 168, 741-749.	0.7	53
15	Radiation-Induced Leukemia at Doses Relevant to Radiation Therapy: Modeling Mechanisms and Estimating Risks. Journal of the National Cancer Institute, 2006, 98, 1794-1806.	3.0	52
16	Microbial cells can cooperate to resist high-level chronic ionizing radiation. PLoS ONE, 2017, 12, e0189261.	1.1	52
17	Far-UVC light prevents MRSA infection of superficial wounds in vivo. PLoS ONE, 2018, 13, e0192053.	1.1	47
18	Review of microbial resistance to chronic ionizing radiation exposure under environmental conditions. Journal of Environmental Radioactivity, 2019, 196, 50-63.	0.9	46

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19	Second cancers after fractionated radiotherapy: Stochastic population dynamics effects. Journal of Theoretical Biology, 2007, 249, 518-531.	0.8	44
20	Risk and Risk Reduction of Major Coronary Events Associated With Contemporary Breast Radiotherapy. JAMA Internal Medicine, 2014, 174, 158.	2.6	41
21	Survival, DNA Integrity, and Ultrastructural Damage in Antarctic Cryptoendolithic Eukaryotic Microorganisms Exposed to Ionizing Radiation. Astrobiology, 2017, 17, 126-135.	1.5	40
22	Candidate protein markers for radiation biodosimetry in the hematopoietically humanized mouse model. Scientific Reports, 2018, 8, 13557.	1.6	35
23	Scaling Human Cancer Risks from Low LET to High LET when Dose-Effect Relationships are Complex. Radiation Research, 2017, 187, 486-492.	0.7	32
24	Whole thorax irradiation of non-human primates induces persistent nuclear damage and gene expression changes in peripheral blood cells. PLoS ONE, 2018, 13, e0191402.	1.1	32
25	Radiation-Induced Carcinogenesis: Mechanistically Based Differences between Gamma-Rays and Neutrons, and Interactions with DMBA. PLoS ONE, 2011, 6, e28559.	1.1	30
26	Chronic gamma radiation resistance in fungi correlates with resistance to chromium and elevated temperatures, but not with resistance to acute irradiation. Scientific Reports, 2019, 9, 11361.	1.6	29
27	A model of interactions between radiation-induced oxidative stress, protein and DNA damage in Deinococcus radiodurans. Journal of Theoretical Biology, 2009, 261, 305-317.	0.8	28
28	Discordant gene responses to radiation in humans and mice and the role of hematopoietically humanized mice in the search for radiation biomarkers. Scientific Reports, 2019, 9, 19434.	1.6	26
29	The effect of protracted Xâ€ray exposure on cell survival and metabolic activity of fast and slow growing fungi capable of melanogenesis. Environmental Microbiology Reports, 2018, 10, 255-263.	1.0	25
30	Optimized Hypofractionation Can Markedly Improve Tumor Control and Decrease Late Effects for Head and Neck Cancer. International Journal of Radiation Oncology Biology Physics, 2019, 104, 272-278.	0.4	25
31	New Approaches for Quantitative Reconstruction of Radiation Dose in Human Blood Cells. Scientific Reports, 2019, 9, 18441.	1.6	19
32	Effect of far ultraviolet light emitted from an optical diffuser on methicillin-resistant Staphylococcus aureus in vitro. PLoS ONE, 2018, 13, e0202275.	1.1	18
33	Effects of radiation quality on interactions between oxidative stress, protein and DNA damage in Deinococcus radiodurans. Radiation and Environmental Biophysics, 2010, 49, 693-703.	0.6	17
34	Is there Unmeasured Indication Bias in Radiation-Related Cancer Risk Estimates from Studies of Computed Tomography?. Radiation Research, 2017, 189, 128.	0.7	17
35	Adverse outcome pathways, key events, and radiation risk assessment. International Journal of Radiation Biology, 2021, 97, 804-814.	1.0	17
36	Survival and redox activity of Friedmanniomyces endolithicus, an Antarctic endemic black meristematic fungus, after gamma rays exposure. Fungal Biology, 2018, 122, 1222-1227.	1.1	16

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37	Dose dependence of accelerated repopulation in head and neck cancer: Supporting evidence and clinical implications. Radiotherapy and Oncology, 2018, 127, 20-26.	0.3	15
38	Investigation of Spatial Organization of Chromosome Territories in Chromosome Exchange Aberrations After Ionizing Radiation Exposure. Health Physics, 2018, 115, 77-89.	0.3	15
39	Effect of dose and dose rate on temporal Î³-H2AX kinetics in mouse blood and spleen mononuclear cells in vivo following Cesium-137 administration. BMC Molecular and Cell Biology, 2019, 20, 13.	1.0	15
40	Transcriptomic analysis reveals the relationship of melanization to growth and resistance to gamma radiation in Cryptococcus neoformans. Environmental Microbiology, 2019, 21, 2613-2628.	1.8	15
41	A High Throughput Approach to Reconstruct Partial-Body and Neutron Radiation Exposures on an Individual Basis. Scientific Reports, 2020, 10, 2899.	1.6	15
42	Mathematical Modeling Predicts Enhanced Growth of X-Ray Irradiated Pigmented Fungi. PLoS ONE, 2014, 9, e85561.	1.1	15
43	Î³-H2AX Kinetic Profile in Mouse Lymphocytes Exposed to the Internal Emitters Cesium-137 and Strontium-90. PLoS ONE, 2015, 10, e0143815.	1.1	15
44	The Balance Between Initiation and Promotion in Radiation-Induced Murine Carcinogenesis. Radiation Research, 2010, 174, 357-366.	0.7	14
45	Review of resistance to chronic ionizing radiation exposure under environmental conditions in multicellular organisms. Journal of Environmental Radioactivity, 2020, 212, 106128.	0.9	14
46	Cytogenetically-based biodosimetry after high doses of radiation. PLoS ONE, 2020, 15, e0228350.	1.1	14
47	Potential Reduction of Contralateral Second Breast-Cancer Risks by Prophylactic Mammary Irradiation: Validation in a Breast-Cancer-Prone Mouse Model. PLoS ONE, 2013, 8, e85795.	1.1	13
48	Potential for Adult-Based Epidemiological Studies to Characterize Overall Cancer Risks Associated with a Lifetime of CT Scans. Radiation Research, 2014, 181, 584-591.	0.7	13
49	Straightening Beta: Overdispersion of Lethal Chromosome Aberrations following Radiotherapeutic Doses Leads to Terminal Linearity in the Alphaâ€“Beta Model. Frontiers in Oncology, 2017, 7, 318.	1.3	13
50	Development of a Model to Estimate the Association Between Delay in Cancer Treatment and Local Tumor Control and Risk of Metastases. JAMA Network Open, 2021, 4, e2034065.	2.8	13
51	Inactivation Rates for Airborne Human Coronavirus by Low Doses of 222 nm Far-UVC Radiation. Viruses, 2022, 14, 684.	1.5	13
52	Three-Color Chromosome Painting as Seen through the Eyes of mFISH: Another Look at Radiation-Induced Exchanges and Their Conversion to Whole-Genome Equivalency. Frontiers in Oncology, 2016, 6, 52.	1.3	12
53	Small-Molecule Mn Antioxidants in Caenorhabditis elegans and Deinococcus radiodurans Supplant MnSOD Enzymes during Aging and Irradiation. MBio, 2022, 13, e0339421.	1.8	12
54	Effects of Radiation Exposure on the Cost-Effectiveness of CT Angiography and Perfusion Imaging in Aneurysmal Subarachnoid Hemorrhage. American Journal of Neuroradiology, 2017, 38, 462-468.	1.2	11

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55	Estimating the excess lifetime risk of radiation induced secondary malignancy (SMN) in pediatric patients treated with craniospinal irradiation (CSI): Conventional radiation therapy versus helical intensity modulated radiation therapy. Practical Radiation Oncology, 2017, 7, 35-41.	1.1	11
56	Advantages of Synthetic Noise and Machine Learning for Analyzing Radioecological Data Sets. PLoS ONE, 2017, 12, e0170007.	1.1	11
57	Modeling species richness and abundance of phytoplankton and zooplankton in radioactively contaminated water bodies. Journal of Environmental Radioactivity, 2018, 192, 14-25.	0.9	11
58	Development of the FAST-DOSE assay system for high-throughput biodosimetry and radiation triage. Scientific Reports, 2020, 10, 12716.	1.6	11
59	REVIEW OF QUANTITATIVE MECHANISTIC MODELS OF RADIATION-INDUCED NON-TARGETED EFFECTS (NTE). Radiation Protection Dosimetry, 2020, 192, 236-252.	0.4	11
60	Quantitative modeling of responses to chronic ionizing radiation exposure using targeted and non-targeted effects. PLoS ONE, 2017, 12, e0176476.	1.1	10
61	MECHANISTIC MODELING PREDICTS NO SIGNIFICANT DOSE RATE EFFECT ON HEAVY-ION CARCINOGENESIS AT DOSE RATES RELEVANT FOR SPACE EXPLORATION. Radiation Protection Dosimetry, 2019, 183, 203-212.	0.4	10
62	Lung Cancer and Heart Disease Risks Associated With Low-Dose Pulmonary Radiotherapy to COVID-19 Patients With Different Background Risks. International Journal of Radiation Oncology Biology Physics, 2021, 111, 233-239.	0.4	10
63	The RABiT-II DCA in the Rhesus Macaque Model. Radiation Research, 2020, 196, 501-509.	0.7	10
64	Mechanistic Analysis of the Contributions of DNA and Protein Damage to Radiation-Induced Cell Death. Radiation Research, 2012, 178, 17-24.	0.7	9
65	DNA damage response in peripheral mouse blood leukocytes in vivo after variable, low-dose rate exposure. Radiation and Environmental Biophysics, 2020, 59, 89-98.	0.6	8
66	Modeling space radiation induced cognitive dysfunction using targeted and non-targeted effects. Scientific Reports, 2021, 11, 8845.	1.6	8
67	Machine learning analysis of 137Cs contamination of terrestrial plants after the Fukushima accident using the random forest algorithm. Journal of Environmental Radioactivity, 2022, 241, 106772.	0.9	8
68	Dose and Dose-Rate Effects in a Mouse Model of Internal Exposure from 137Cs. Part 2: Integration of Gamma-H2AX and Gene Expression Biomarkers for Retrospective Radiation Biodosimetry. Radiation Research, 2020, 196, 491-500.	0.7	8
69	Effects of High- and Low-LET Radiation on Human Hematopoietic System Reconstituted in Immunodeficient Mice. Radiation Research, 2018, 191, 162.	0.7	7
70	Estimating cancer risk from 99mTc pyrophosphate imaging for transthyretin cardiac amyloidosis. Journal of Nuclear Cardiology, 2020, 27, 215-224.	1.4	7
71	Effects of radiation type and delivery mode on a radioresistant eukaryote Cryptococcus neoformans. Nuclear Medicine and Biology, 2015, 42, 515-523.	0.3	6
72	Quantitative Modeling of Microbial Population Responses to Chronic Irradiation Combined with Other Stressors. PLoS ONE, 2016, 11, e0147696.	1.1	6

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73	New Approaches for Modeling Radiopharmaceutical Pharmacokinetics Using Continuous Distributions of Rates. Journal of Nuclear Medicine, 2015, 56, 1622-1628.	2.8	5
74	Enhancing low-dose risk assessment using mechanistic mathematical models of radiation effects. Journal of Radiological Protection, 2019, 39, S1-S13.	0.6	5
75	Machine learning methodology for high throughput personalized neutron dose reconstruction in mixed neutronâ€‰+â€‰photon exposures. Scientific Reports, 2021, 11, 4022.	1.6	5
76	Quantitative modeling of multigenerational effects of chronic ionizing radiation using targeted and nontargeted effects. Scientific Reports, 2021, 11, 4776.	1.6	5
77	Quantitative modeling of carcinogenesis induced by single beams or mixtures of space radiations using targeted and non-targeted effects. Scientific Reports, 2021, 11, 23467.	1.6	5
78	New Insight into Quantitative Modeling of DNA Double-Strand Break Rejoining. Radiation Research, 2015, 184, 280.	0.7	4
79	Estimating Cancer Risk Associated With Ionizing Radiation Exposure During Atrial Fibrillation Ablation. JACC: Clinical Electrophysiology, 2017, 3, 1200-1201.	1.3	4
80	Lethal and nonlethal chromosome aberrations by gamma rays and heavy ions: a cytogenetic perspective on dose fractionation in hadron radiotherapy. Translational Cancer Research, 2017, 6, S769-S778.	0.4	4
81	Development of electronic training and telescoring tools to increase the surge capacity of dicentric chromosome scorers for radiological/nuclear mass casualty incidents. Applied Radiation and Isotopes, 2019, 144, 111-117.	0.7	3
82	Accounting for overdispersion of lethal lesions in the linear quadratic model improves performance at both high and low radiation doses. International Journal of Radiation Biology, 2021, 97, 50-59.	1.0	3
83	The Transcriptomic and Phenotypic Response of the Melanized Yeast Exophiala dermatitidis to Ionizing Particle Exposure. Frontiers in Microbiology, 2020, 11, 609996.	1.5	3
84	Robbing Peter to Pay Paul: Competition for Radiogenic Breaks During Rejoining Diminishes Curvature in the Dose Response for Simple Chromosome Exchanges. Radiation Research, 2021, 196, 147-155.	0.7	2
85	Mechanistic Modeling of Dose and Dose Rate Dependences of Radiation-Induced DNA Double Strand Break Rejoining Kinetics in Saccharomyces cerevisiae. PLoS ONE, 2016, 11, e0146407.	1.1	2
86	A practical approach for continuous in situ characterization of radiation quality factors in space. Scientific Reports, 2022, 12, 1453.	1.6	2
87	Usefulness of continuous probability distributions of rates for modelling radionuclide biokinetics in humans and animals. Scientific Reports, 2019, 9, 1218.	1.6	1
88	Quantitative modeling of radioactive cesium concentrations in large omnivorous mammals after the Fukushima nuclear power plant accident. Scientific Reports, 2021, 11, 10049.	1.6	1
89	In Reply to Welsh et al.. International Journal of Radiation Oncology Biology Physics, 2021, 111, 576-577.	0.4	1
90	In Reply to Penagaricano. International Journal of Radiation Oncology Biology Physics, 2019, 105, 232-233.	0.4	0

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91	Secondary rectal malignancy risk reduction with IMRT and rectal balloon placement during radiation therapy.. Journal of Clinical Oncology, 2012, 30, e15162-e15162.	0.8	0
92	Predicting the risk of secondary malignancies associated with stereotactic body radiation therapy.. Journal of Clinical Oncology, 2012, 30, e17562-e17562.	0.8	0