

Michael Weinfeld

List of Publications by Year in descending order

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papers

4,602
citations

147801

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3213
citing authors

#	ARTICLE	IF	CITATIONS
1	XRCC1 Stimulates Human Polynucleotide Kinase Activity at Damaged DNA Termini and Accelerates DNA Single-Strand Break Repair. <i>Cell</i> , 2001, 104, 107-117.	28.9	554
2	AP Endonuclease-Independent DNA Base Excision Repair in Human Cells. <i>Molecular Cell</i> , 2004, 15, 209-220.	9.7	434
3	Defective DNA single-strand break repair in spinocerebellar ataxia with axonal neuropathy-1. <i>Nature</i> , 2005, 434, 108-113.	27.8	382
4	Involvement of human polynucleotide kinase in double-strand break repair by non-homologous end joining. <i>EMBO Journal</i> , 2002, 21, 2827-2832.	7.8	234
5	Xrcc4 physically links DNA end processing by polynucleotide kinase to DNA ligation by DNA ligase IV. <i>EMBO Journal</i> , 2004, 23, 3874-3885.	7.8	218
6	Molecular Characterization of a Human DNA Kinase. <i>Journal of Biological Chemistry</i> , 1999, 274, 24187-24194.	3.4	215
7	Inducible Repair of Thymine Glycol Detected by an Ultrasensitive Assay for DNA Damage. <i>Science</i> , 1998, 280, 1066-1069.	12.6	209
8	The Molecular Architecture of the Mammalian DNA Repair Enzyme, Polynucleotide Kinase. <i>Molecular Cell</i> , 2005, 17, 657-670.	9.7	191
9	Association of XRCC1 and tyrosyl DNA phosphodiesterase (Tdp1) for the repair of topoisomerase I-mediated DNA lesions. <i>DNA Repair</i> , 2003, 2, 1087-1100.	2.8	181
10	Tidying up loose ends: the role of polynucleotide kinase/phosphatase in DNA strand break repair. <i>Trends in Biochemical Sciences</i> , 2011, 36, 262-271.	7.5	159
11	Stable down-regulation of human polynucleotide kinase enhances spontaneous mutation frequency and sensitizes cells to genotoxic agents. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 6905-6910.	7.1	139
12	NEIL2-initiated, APE-independent repair of oxidized bases in DNA: Evidence for a repair complex in human cells. <i>DNA Repair</i> , 2006, 5, 1439-1448.	2.8	127
13	Pnk1, a DNA Kinase/Phosphatase Required for Normal Response to DNA Damage by \hat{I}^3 -Radiation or Camptothecin in <i>Schizosaccharomyces pombe</i> . <i>Journal of Biological Chemistry</i> , 2002, 277, 4050-4055.	3.4	103
14	Role of polynucleotide kinase/phosphatase in mitochondrial DNA repair. <i>Nucleic Acids Research</i> , 2012, 40, 3484-3495.	14.5	96
15	Involvement of Polynucleotide Kinase in a Poly(ADP-ribose) Polymerase-1-dependent DNA Double-strand Breaks Rejoining Pathway. <i>Journal of Molecular Biology</i> , 2006, 356, 257-265.	4.2	92
16	Human Polynucleotide Kinase Participates in Repair of DNA Double-Strand Breaks by Nonhomologous End Joining but not Homologous Recombination. <i>Cancer Research</i> , 2007, 67, 6619-6625.	0.9	74
17	Identification of a Small Molecule Inhibitor of the Human DNA Repair Enzyme Polynucleotide Kinase/Phosphatase. <i>Cancer Research</i> , 2009, 69, 7739-7746.	0.9	73
18	Microhomology-mediated end joining is activated in irradiated human cells due to phosphorylation-dependent formation of the XRCC1 repair complex. <i>Nucleic Acids Research</i> , 2017, 45, gkw1262.	14.5	62

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19	Phosphorylation of polynucleotide kinase/ phosphatase by DNA-dependent protein kinase and ataxia-telangiectasia mutated regulates its association with sites of DNA damage. <i>Nucleic Acids Research</i> , 2011, 39, 9224-9237.	14.5	61
20	Insulin Growth Factor Binding Protein 7 (IGFBP7)-Related Cancer and IGFBP3 and IGFBP7 Crosstalk. <i>Frontiers in Oncology</i> , 2020, 10, 727.	2.8	61
21	Dual Modes of Interaction between XRCC4 and Polynucleotide Kinase/Phosphatase. <i>Journal of Biological Chemistry</i> , 2010, 285, 37619-37629.	3.4	57
22	Biophysical Characterization of Human XRCC1 and Its Binding to Damaged and Undamaged DNA. <i>Biochemistry</i> , 2004, 43, 16505-16514.	2.5	55
23	XRCC1 Stimulates Polynucleotide Kinase by Enhancing Its Damage Discrimination and Displacement from DNA Repair Intermediates. <i>Journal of Biological Chemistry</i> , 2007, 282, 28004-28013.	3.4	46
24	DNA wrapping is required for DNA damage recognition in the Escherichia coli DNA nucleotide excision repair pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12849-12854.	7.1	46
25	Influence of nitrogen, oxygen, and nitroimidazole radiosensitizers on DNA damage induced by ionizing radiation. <i>Biochemistry</i> , 1993, 32, 2186-2193.	2.5	40
26	Mechanism of Action of an Imidopiperidine Inhibitor of Human Polynucleotide Kinase/Phosphatase. <i>Journal of Biological Chemistry</i> , 2010, 285, 2351-2360.	3.4	40
27	Structural and functional characterization of the PNKP-XRCC4-LigIV DNA repair complex. <i>Nucleic Acids Research</i> , 2017, 45, 6238-6251.	14.5	39
28	Neurological disorders associated with DNA strand-break processing enzymes. <i>Mechanisms of Ageing and Development</i> , 2017, 161, 130-140.	4.6	39
29	Genetic Screening for Synthetic Lethal Partners of Polynucleotide Kinase/Phosphatase: Potential for Targeting SHP-Depleted Cancers. <i>Cancer Research</i> , 2012, 72, 5934-5944.	0.9	36
30	Purification and substrate specificity of polydeoxyribonucleotide kinases isolated from calf thymus and rat liver. <i>Journal of Cellular Biochemistry</i> , 1997, 64, 258-272.	2.6	34
31	DNA ligase III acts as a DNA strand break sensor in the cellular orchestration of DNA strand break repair. <i>Nucleic Acids Research</i> , 2015, 43, 875-892.	14.5	32
32	The human polynucleotide kinase/phosphatase (hPNKP) inhibitor A12B4C3 radiosensitizes human myeloid leukemia cells to Auger electron-emitting anti-CD123 111In-NLS-7G3 radioimmunoconjugates. <i>Nuclear Medicine and Biology</i> , 2014, 41, 377-383.	0.6	30
33	ATPase activity tightly regulates RecA nucleofilaments to promote homologous recombination. <i>Cell Discovery</i> , 2017, 3, 16053.	6.7	30
34	Independent mechanisms of stimulation of polynucleotide kinase/phosphatase by phosphorylated and non-phosphorylated XRCC1. <i>Nucleic Acids Research</i> , 2010, 38, 510-521.	14.5	27
35	Synthetic Lethal Targeting of PTEN-Deficient Cancer Cells Using Selective Disruption of Polynucleotide Kinase/Phosphatase. <i>Molecular Cancer Therapeutics</i> , 2013, 12, 2135-2144.	4.1	27
36	Synthesis and Analysis of ⁶⁴ Cu-Labeled GE11-Modified Polymeric Micellar Nanoparticles for EGFR-Targeted Molecular Imaging in a Colorectal Cancer Model. <i>Molecular Pharmaceutics</i> , 2020, 17, 1470-1481.	4.6	27

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37	Physical Properties of Human Polynucleotide Kinase:Â Hydrodynamic and Spectroscopic Studiesâ€. Biochemistry, 2001, 40, 12967-12973.	2.5	25
38	End-damage-specific proteins facilitate recruitment or stability of X-ray cross-complementing protein 1 at the sites of DNA single-strand break repair. FEBS Journal, 2005, 272, 5753-5763.	4.7	20
39	Persistent 3â€²-phosphate termini and increased cytotoxicity of radiomimetic DNA double-strand breaks in cells lacking polynucleotide kinase/phosphatase despite presence of an alternative 3â€²-phosphatase. DNA Repair, 2018, 68, 12-24.	2.8	20
40	Spectroscopic Studies of DNA and ATP Binding to Human Polynucleotide Kinase:Â Evidence for a Ternary Complexâ€. Biochemistry, 2003, 42, 12077-12084.	2.5	18
41	Key Issues Related to Cryopreservation and Storage of Stem Cells and Cancer Stem Cells: Protecting Biological Integrity. Advances in Experimental Medicine and Biology, 2016, 951, 1-12.	1.6	18
42	Targeting DNA Repair in Tumor Cells via Inhibition of ERCC1â€“XPF. Journal of Medicinal Chemistry, 2019, 62, 7684-7696.	6.4	18
43	Photo-activation of the delocalized lipophilic cation D112 potentiates cancer selective ROS production and apoptosis. Cell Death and Disease, 2017, 8, e2587-e2587.	6.3	17
44	The Rev1 interacting region (RIR) motif in the scaffold protein XRCC1 mediates a low-affinity interaction with polynucleotide kinase/phosphatase (PNKP) during DNA single-strand break repair. Journal of Biological Chemistry, 2017, 292, 16024-16031.	3.4	16
45	Computerâ€aided drug design of small molecule inhibitors of the ERCC1â€“XPF proteinâ€“protein interaction. Chemical Biology and Drug Design, 2020, 95, 460-471.	3.2	15
46	Production, Characterization, and Epitope Mapping of Monoclonal Antibodies Against Human Polydeoxyribonucleotide Kinase. Hybridoma, 2001, 20, 237-242.	0.6	14
47	Nanoencapsulation of Novel Inhibitors of PNKP for Selective Sensitization to Ionizing Radiation and Irinotecan and Induction of Synthetic Lethality. Molecular Pharmaceutics, 2018, 15, 2316-2326.	4.6	14
48	siRNA therapy in cutaneous T-cell lymphoma cells using polymeric carriers. Biomaterials, 2014, 35, 9382-9394.	11.4	13
49	Domain analysis of PNKPâ€“XRCC1 interactions: Influence of genetic variants of XRCC1. Journal of Biological Chemistry, 2019, 294, 520-530.	3.4	10
50	RUNX3 Promotes the Tumorigenic Phenotype in KGN, a Human Granulosa Cell Tumor-Derived Cell Line. International Journal of Molecular Sciences, 2019, 20, 3471.	4.1	9
51	Development of Self-Associating SN-38-Conjugated Poly(ethylene oxide)-Poly(ester) Micelles for Colorectal Cancer Therapy. Pharmaceutics, 2020, 12, 1033.	4.5	9
52	Biobanking in the Twenty-First Century: Driving Population Metrics into Biobanking Quality. Advances in Experimental Medicine and Biology, 2015, 864, 95-114.	1.6	9
53	Cellular mechanism of action of 2-nitroimidazoles as hypoxia-selective therapeutic agents. Redox Biology, 2022, 52, 102300.	9.0	9
54	A synthetically lethal nanomedicine delivering novel inhibitors of polynucleotide kinase 3â€²-phosphatase (PNKP) for targeted therapy of PTEN-deficient colorectal cancer. Journal of Controlled Release, 2021, 334, 335-352.	9.9	8

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55	Enhancing the activity of platinum-based drugs by improved inhibitors of ERCC1-XPF-mediated DNA repair. <i>Cancer Chemotherapy and Pharmacology</i> , 2021, 87, 259-267.	2.3	7
56	Design, synthesis and in vitro cell-free/cell-based biological evaluations of novel ERCC1-XPF inhibitors targeting DNA repair pathway. <i>European Journal of Medicinal Chemistry</i> , 2020, 204, 112658.	5.5	6
57	Modulation of ERCC1-XPF Heterodimerization Inhibition via Structural Modification of Small Molecule Inhibitor Side-Chains. <i>Frontiers in Oncology</i> , 2022, 12, 819172.	2.8	6
58	Nano-Delivery of a Novel Inhibitor of Polynucleotide Kinase/Phosphatase (PNKP) for Targeted Sensitization of Colorectal Cancer to Radiation-Induced DNA Damage. <i>Frontiers in Oncology</i> , 2021, 11, 772920.	2.8	6
59	Immunofluorescence Detection of Radiation-Induced DNA Base Damage. <i>Military Medicine</i> , 2002, 167, 2-4.	0.8	5
60	Characterization of the Apoptotic Response Induced by the Cyanine Dye D112: A Potentially Selective Anti-Cancer Compound. <i>PLoS ONE</i> , 2015, 10, e0125381.	2.5	5
61	Characterization of Plasmodium falciparum ATP-dependent DNA helicase RuvB3. <i>Malaria Journal</i> , 2016, 15, 526.	2.3	5
62	Identification of proteins and cellular pathways targeted by 2-nitroimidazole hypoxic cytotoxins. <i>Redox Biology</i> , 2021, 41, 101905.	9.0	5
63	Biodistribution and Activity of EGFR Targeted Polymeric Micelles Delivering a New Inhibitor of DNA Repair to Orthotopic Colorectal Cancer Xenografts with Metastasis. <i>Molecular Pharmaceutics</i> , 2022, 19, 1825-1838.	4.6	5
64	Zika Virus Induces Mitotic Catastrophe in Human Neural Progenitors by Triggering Unscheduled Mitotic Entry in the Presence of DNA Damage While Functionally Depleting Nuclear PNKP. <i>Journal of Virology</i> , 2022, 96, e0033322.	3.4	5
65	PNKP is required for maintaining the integrity of progenitor cell populations in adult mice. <i>Life Science Alliance</i> , 2021, 4, e202000790.	2.8	3
66	Mutations of the DNA repair gene PNKP in a patient with microcephaly, seizures, and developmental delay (MCSZ) presenting with a high-grade brain tumor. <i>Scientific Reports</i> , 2022, 12, 5386.	3.3	3
67	Characterization of DNA Substrate Binding to the Phosphatase Domain of the DNA Repair Enzyme Polynucleotide Kinase/Phosphatase. <i>Biochemistry</i> , 2017, 56, 1737-1745.	2.5	2
68	Putative electron-affinic radiosensitizers and markers of hypoxic tissue: Synthesis and preliminary in vitro biological characterization of C3-amino-substituted benzotriazine dioxides (BTDOs). <i>European Journal of Medicinal Chemistry</i> , 2019, 165, 216-224.	5.5	2
69	Gold Nanorods are Selective Cytotoxic Agents. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , 2022, 22, 991-998.	1.7	1
70	Processing Strand Break Termini in the DNA Single-Strand Break Repair Pathway. , 2017, , 281-321.		1
71	Hydrazonoyl chlorides possess promising antitumor properties. <i>Life Sciences</i> , 2022, 295, 120380.	4.3	1