

William R Wilson

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7152365/publications.pdf>

Version: 2024-02-01

75
papers

6,850
citations

94433

37
h-index

76900

74
g-index

78
all docs

78
docs citations

78
times ranked

9084
citing authors

#	ARTICLE	IF	CITATIONS
1	Targeting hypoxia in cancer therapy. <i>Nature Reviews Cancer</i> , 2011, 11, 393-410.	28.4	2,607
2	Mechanisms and biomaterials in pH-responsive tumour targeted drug delivery: A review. <i>Biomaterials</i> , 2016, 85, 152-167.	11.4	768
3	Mechanism of Action and Preclinical Antitumor Activity of the Novel Hypoxia-Activated DNA Cross-Linking Agent PR-104. <i>Clinical Cancer Research</i> , 2007, 13, 3922-3932.	7.0	208
4	Therapeutic targeting of the hypoxic tumour microenvironment. <i>Nature Reviews Clinical Oncology</i> , 2021, 18, 751-772.	27.6	185
5	Hypoxia-activated prodrugs: paths forward in the era of personalised medicine. <i>British Journal of Cancer</i> , 2016, 114, 1071-1077.	6.4	155
6	The Bioreductive Prodrug PR-104A Is Activated under Aerobic Conditions by Human Aldo-Keto Reductase 1C3. <i>Cancer Research</i> , 2010, 70, 1573-1584.	0.9	153
7	Use of Three-Dimensional Tissue Cultures to Model Extravascular Transport and Predict In Vivo Activity of Hypoxia-Targeted Anticancer Drugs. <i>Journal of the National Cancer Institute</i> , 2006, 98, 1118-1128.	6.3	139
8	Considerations for the design of nitrophenyl mustards as agents with selective toxicity for hypoxic tumor cells. <i>Journal of Medicinal Chemistry</i> , 1986, 29, 879-887.	6.4	129
9	Pharmacokinetic/Pharmacodynamic Modeling Identifies SN30000 and SN29751 as Tirapazamine Analogues with Improved Tissue Penetration and Hypoxic Cell Killing in Tumors. <i>Clinical Cancer Research</i> , 2010, 16, 4946-4957.	7.0	120
10	Extravascular diffusion of tirapazamine: effect of metabolic consumption assessed using the multicellular layer model. <i>International Journal of Radiation Oncology Biology Physics</i> , 1998, 42, 641-649.	0.8	93
11	Tirapazamine: a bioreductive anticancer drug that exploits tumour hypoxia. <i>Expert Opinion on Investigational Drugs</i> , 2000, 9, 2889-2901.	4.1	93
12	A phase I trial of PR-104, a nitrogen mustard prodrug activated by both hypoxia and aldo-keto reductase 1C3, in patients with solid tumors. <i>Cancer Chemotherapy and Pharmacology</i> , 2010, 65, 791-801.	2.3	86
13	Multicellular resistance to tirapazamine is due to restricted extravascular transport: a pharmacokinetic/pharmacodynamic study in HT29 multicellular layer cultures. <i>Cancer Research</i> , 2003, 63, 5970-7.	0.9	77
14	DNA Cross-Links in Human Tumor Cells Exposed to the Prodrug PR-104A: Relationships to Hypoxia, Bioreductive Metabolism, and Cytotoxicity. <i>Cancer Research</i> , 2009, 69, 3884-3891.	0.9	76
15	Synthesis, structures and hypoxia-selective cytotoxicity of cobalt(III) complexes containing tridentate amine and nitrogen mustard ligands. <i>Dalton Transactions RSC</i> , 2000, , 925-932.	2.3	71
16	The 2-Nitroimidazole EF5 Is a Biomarker for Oxidoreductases That Activate the Bioreductive Prodrug CEN-209 under Hypoxia. <i>Clinical Cancer Research</i> , 2012, 18, 1684-1695.	7.0	67
17	Oxygen Dependence and Extravascular Transport of Hypoxia-Activated Prodrugs: Comparison of the Dinitrobenzamide Mustard PR-104A and Tirapazamine. <i>International Journal of Radiation Oncology Biology Physics</i> , 2007, 69, 560-571.	0.8	66
18	The Design of Selectively-activated Anti-cancer Prodrugs for use in Antibody-directed and Gene-directed Enzyme-Prodrug Therapies*. <i>Journal of Pharmacy and Pharmacology</i> , 2011, 50, 387-394.	2.4	66

#	ARTICLE	IF	CITATIONS
19	Identification of P450 Oxidoreductase as a Major Determinant of Sensitivity to Hypoxia-Activated Prodrugs. <i>Cancer Research</i> , 2015, 75, 4211-4223.	0.9	65
20	Bystander Effects of Bioreductive Drugs: Potential for Exploiting Pathological Tumor Hypoxia with Dinitrobenzamide Mustards. <i>Radiation Research</i> , 2007, 167, 625-636.	1.5	61
21	Diflavin Oxidoreductases Activate the Bioreductive Prodrug PR-104A under Hypoxia. <i>Molecular Pharmacology</i> , 2012, 81, 31-40.	2.3	61
22	Roles of DNA repair and reductase activity in the cytotoxicity of the hypoxia-activated dinitrobenzamide mustard PR-104A. <i>Molecular Cancer Therapeutics</i> , 2009, 8, 1714-1723.	4.1	60
23	Reductive Chemistry of the Novel Hypoxia-Selective Cytotoxin 5-[N,N-Bis(2-chloroethyl)amino]-2,4-dinitrobenzamide. <i>Journal of Medicinal Chemistry</i> , 1995, 38, 1229-1241.	6.4	58
24	Dual pH-sensitive liposomes with low pH-triggered sheddable PEG for enhanced tumor-targeted drug delivery. <i>Nanomedicine</i> , 2019, 14, 1971-1989.	3.3	58
25	A phase I trial of PR-104, a pre-prodrug of the bioreductive prodrug PR-104A, given weekly to solid tumour patients. <i>BMC Cancer</i> , 2011, 11, 432.	2.6	56
26	Quantitation of bystander effects in nitroreductase suicide gene therapy using three-dimensional cell cultures. <i>Cancer Research</i> , 2002, 62, 1425-32.	0.9	56
27	Next-Generation Hypoxic Cell Radiosensitizers: Nitroimidazole Alkylsulfonamides. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 1241-1254.	6.4	52
28	Synthesis and Cytotoxicity of 5-Amino-1-(chloromethyl)-3-[(5,6,7-trimethoxyindol-2-yl)carbonyl]-1,2-dihydro-3H-benz[e]indole (Amino-seco-CBI-TMI) and Related 5-Alkylamino Analogues: New DNA Minor Groove Alkylating Agents. <i>Journal of Organic Chemistry</i> , 1998, 63, 9414-9420.	3.2	50
29	PR-104 a bioreductive pre-prodrug combined with gemcitabine or docetaxel in a phase Ib study of patients with advanced solid tumours. <i>BMC Cancer</i> , 2012, 12, 496.	2.6	49
30	Hypoxia-Activated Prodrugs: Substituent Effects on the Properties of Nitro-seco-1,2,9,9a-Tetrahydrocyclopropa[1,2-c]benz[e]indol-4-one (nitroCBI) Prodrugs of DNA Minor Groove Alkylating Agents. <i>Journal of Medicinal Chemistry</i> , 2009, 52, 7258-7272.	6.4	47
31	Oxygen Dependence of the Metabolic Activation and Cytotoxicity of Tirapazamine: Implications for Extravascular Transport and Activity in Tumors. <i>Radiation Research</i> , 2004, 161, 656-666.	1.5	46
32	The Role of Bystander Effects in the Antitumor Activity of the Hypoxia-Activated Prodrug PR-104. <i>Frontiers in Oncology</i> , 2013, 3, 263.	2.8	46
33	PEG-Benzaldehyde-Hydrazone-Lipid Based PEG-Sheddable pH-Sensitive Liposomes: Abilities for Endosomal Escape and Long Circulation. <i>Pharmaceutical Research</i> , 2018, 35, 154.	3.5	45
34	Evofosfamide for the treatment of human papillomavirus-negative head and neck squamous cell carcinoma. <i>JCI Insight</i> , 2018, 3, .	5.0	44
35	Selective Treatment of Hypoxic Tumor Cells In Vivo: Phosphate Pre-prodrugs of Nitro Analogues of the Duocarmycins. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2606-2609.	13.8	43
36	Hypoxia-Selective Antitumor Agents. 12. Nitrobenzyl Quaternary Salts as Bioreductive Prodrugs of the Alkylating Agent Mechlorethamine. <i>Journal of Medicinal Chemistry</i> , 1996, 39, 1084-1094.	6.4	41

#	ARTICLE	IF	CITATIONS
37	Hypoxia-Selective Antitumor Agents. 14. Synthesis and Hypoxic Cell Cytotoxicity of Regioisomers of the Hypoxia-Selective Cytotoxin 5-[N,N-Bis(2-chloroethyl)amino]-2,4-dinitrobenzamide. <i>Journal of Medicinal Chemistry</i> , 1996, 39, 2518-2528.	6.4	40
38	Dual Targeting of Hypoxia and Homologous Recombination Repair Dysfunction in Triple-Negative Breast Cancer. <i>Molecular Cancer Therapeutics</i> , 2014, 13, 2501-2514.	4.1	40
39	Synthesis of 1-Substituted 3-(Chloromethyl)-6-aminoindoline (6-Amino-seco-CI) DNA Minor Groove Alkylating Agents and Structure-Activity Relationships for Their Cytotoxicity. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 649-658.	6.4	38
40	Synthesis and Structure-Activity Relationships for 2,4-Dinitrobenzamide-5-mustards as Prodrugs for the <i>Escherichia coli</i> nfsB Nitroreductase in Gene Therapy. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 1197-1212.	6.4	38
41	Nitro-chloromethylbenzindolines: hypoxia-activated prodrugs of potent adenine N^3 DNA minor groove alkylators. <i>Molecular Cancer Therapeutics</i> , 2009, 8, 2903-2913.	4.1	36
42	Synthesis and Cytotoxicity of Amino-seco-DSA: An Amino Analogue of the DNA Alkylating Agent Duocarmycin SA. <i>Journal of Organic Chemistry</i> , 1999, 64, 5946-5953.	3.2	33
43	Identification of one-electron reductases that activate both the hypoxia prodrug SN30000 and diagnostic probe EF5. <i>Biochemical Pharmacology</i> , 2014, 91, 436-446.	4.4	33
44	An agent-based model for drug-radiation interactions in the tumour microenvironment: Hypoxia-activated prodrug SN30000 in multicellular tumour spheroids. <i>PLoS Computational Biology</i> , 2018, 14, e1006469.	3.2	33
45	Hypoxia-Selective Antitumor Agents. 9. Structure-Activity Relationships for Hypoxia-Selective Cytotoxicity among Analogs of 5-[N,N-Bis(2-chloroethyl)amino]-2,4-dinitrobenzamide. <i>Journal of Medicinal Chemistry</i> , 1994, 37, 2175-2184.	6.4	32
46	Hypoxia-selective Radiosensitization of Mammalian Cells by Nitracrine, an Electron-affinic DNA Intercalator. <i>International Journal of Radiation Biology and Related Studies in Physics, Chemistry, and Medicine</i> , 1987, 51, 641-654.	1.0	29
47	PR-104 plus sorafenib in patients with advanced hepatocellular carcinoma. <i>Cancer Chemotherapy and Pharmacology</i> , 2011, 68, 539-545.	2.3	29
48	Characterization of a smart pH-cleavable PEG polymer towards the development of dual pH-sensitive liposomes. <i>International Journal of Pharmaceutics</i> , 2018, 548, 288-296.	5.2	28
49	Radiosensitization of head and neck squamous cell carcinoma lines by DNA-PK inhibitors is more effective than PARP-1 inhibition and is enhanced by SLFN11 and hypoxia. <i>International Journal of Radiation Biology</i> , 2019, 95, 1597-1612.	1.8	26
50	Reductive metabolism of the dinitrobenzamide mustard anticancer prodrug PR-104 in mice. <i>Cancer Chemotherapy and Pharmacology</i> , 2011, 67, 543-555.	2.3	23
51	Zinc Finger Nuclease Knock-out of NADPH:Cytochrome P450 Oxidoreductase (POR) in Human Tumor Cell Lines Demonstrates That Hypoxia-activated Prodrugs Differ in POR Dependence. <i>Journal of Biological Chemistry</i> , 2013, 288, 37138-37153.	3.4	22
52	Cellular pharmacology of evofosfamide (TH-302): A critical re-evaluation of its bystander effects. <i>Biochemical Pharmacology</i> , 2018, 156, 265-280.	4.4	22
53	An Intratumor Pharmacokinetic/Pharmacodynamic Model for the Hypoxia-Activated Prodrug Evofosfamide (TH-302): Monotherapy Activity is Not Dependent on a Bystander Effect. <i>Neoplasia</i> , 2019, 21, 159-171.	5.3	22
54	The flavoprotein FOXRED2 reductively activates nitro-chloromethylbenzindolines and other hypoxia-targeting prodrugs. <i>Biochemical Pharmacology</i> , 2014, 89, 224-235.	4.4	21

#	ARTICLE	IF	CITATIONS
55	Bystander Effects of Hypoxia-Activated Prodrugs: Agent-Based Modeling Using Three Dimensional Cell Cultures. <i>Frontiers in Pharmacology</i> , 2018, 9, 1013.	3.5	21
56	Hypoxia-selective radiosensitisation by SN38023, a bioreductive prodrug of DNA-dependent protein kinase inhibitor IC87361. <i>Biochemical Pharmacology</i> , 2019, 169, 113641.	4.4	19
57	Glucuronidation of Anticancer Prodrug PR-104A: Species Differences, Identification of Human UDP-Glucuronosyltransferases, and Implications for Therapy. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 337, 692-702.	2.5	16
58	Reductive Metabolism Influences the Toxicity and Pharmacokinetics of the Hypoxia-Targeted Benzotriazine Di-Oxide Anticancer Agent SN30000 in Mice. <i>Frontiers in Pharmacology</i> , 2017, 8, 531.	3.5	16
59	Proliferative assays for the assessment of radiosensitivity of tumor cell lines using 96-well microcultures. <i>Radiation Oncology Investigations</i> , 1993, 1, 261-269.	0.9	13
60	Cytotoxicity and DNA Interaction of the Enantiomers of 6-Amino-3-(chloromethyl)-1-[(5,6,7-trimethoxyindol-2-yl)carbonyl]indoline (Amino-seco-CI-TMI). <i>Chemical Research in Toxicology</i> , 1999, 12, 700-706.	3.3	13
61	In Vitro and In Vivo Models for Evaluation of GDEPT: Quantifying Bystander Killing in Cell Cultures and Tumors. , 2004, 90, 403-432.		13
62	DNA Adduct Profiles Predict in Vitro Cell Viability after Treatment with the Experimental Anticancer Prodrug PR104A. <i>Chemical Research in Toxicology</i> , 2017, 30, 830-839.	3.3	13
63	Studies Towards Hypoxia-Activated Prodrugs of PARP Inhibitors. <i>Molecules</i> , 2019, 24, 1559.	3.8	11
64	Functional CRISPR and shRNA Screens Identify Involvement of Mitochondrial Electron Transport in the Activation of Evofosfamide. <i>Molecular Pharmacology</i> , 2019, 95, 638-651.	2.3	11
65	Nitroacridines with selective toxicity towards hypoxic mammalian cells: Synthesis and stability of tritiated derivatives. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 1985, 22, 995-1005.	1.0	9
66	Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists, 1994: HYPOXIA-ACTIVATED PRODRUGS AS ANTITUMOUR AGENTS: STRATEGIES FOR MAXIMIZING TUMOUR CELL KILLING. <i>Clinical and Experimental Pharmacology and Physiology</i> , 1995, 22, 881-885.	1.9	8
67	Photodegradation of the Benzotriazine 1,4-Di-N-Oxide Hypoxia-Activated Prodrug SN30000 in Aqueous Solution. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 3464-3472.	3.3	7
68	Radiosensitisation of SCCVII tumours and normal tissues in mice by the DNA-dependent protein kinase inhibitor AZD7648. <i>Radiotherapy and Oncology</i> , 2022, 166, 162-170.	0.6	7
69	Drug-DNA adducts as biomarkers for metabolic activation of the nitro-aromatic nitrogen mustard prodrug PR-104A. <i>Biochemical Pharmacology</i> , 2018, 154, 64-74.	4.4	6
70	Subcellular Location of Tirapazamine Reduction Dramatically Affects Aerobic but Not Anoxic Cytotoxicity. <i>Molecules</i> , 2020, 25, 4888.	3.8	4
71	Bioreductive prodrug PR-104 improves the tumour distribution and titre of the nitroreductase-armed oncolytic adenovirus ONYX-411NTR leading to therapeutic benefit. <i>Cancer Gene Therapy</i> , 2022, 29, 1021-1032.	4.6	4
72	Benzotriazine Di-Oxide Prodrugs for Exploiting Hypoxia and Low Extracellular pH in Tumors. <i>Molecules</i> , 2019, 24, 2524.	3.8	3

#	ARTICLE	IF	CITATIONS
73	Spatially-resolved pharmacokinetic/pharmacodynamic modelling of bystander effects of a nitrochloromethylbenzindoline hypoxia-activated prodrug. <i>Cancer Chemotherapy and Pharmacology</i> , 2021, 88, 673-687.	2.3	2
74	Quantitative Structure-Activity Relationships for the Cytotoxicity of Substituted Aniline Mustards in Tissue Culture. <i>ACS Symposium Series</i> , 1989, , 291-300.	0.5	1
75	Development of capability for genome-scale CRISPR-Cas9 knockout screens in New Zealand. <i>Journal of the Royal Society of New Zealand</i> , 2018, 48, 245-261.	1.9	1