

Michael P Hay

List of Publications by Year in descending order

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72
papers

5,733
citations

126708

33
h-index

85405

71
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74
all docs

74
docs citations

74
times ranked

8879
citing authors

#	ARTICLE	IF	CITATIONS
1	Targeting hypoxia in cancer therapy. <i>Nature Reviews Cancer</i> , 2011, 11, 393-410.	12.8	2,607
2	Targeting GLUT1 and the Warburg Effect in Renal Cell Carcinoma by Chemical Synthetic Lethality. <i>Science Translational Medicine</i> , 2011, 3, 94ra70.	5.8	431
3	A Molecule Targeting VHL-Deficient Renal Cell Carcinoma that Induces Autophagy. <i>Cancer Cell</i> , 2008, 14, 90-102.	7.7	233
4	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.	3.0	139
5	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.	3.2	120
6	Activation of 3-Amino-1,2,4-benzotriazine 1,4-Dioxide Antitumor Agents to Oxidizing Species Following Their One-Electron Reduction. <i>Journal of the American Chemical Society</i> , 2003, 125, 748-756.	6.6	114
7	Structure-Activity Relationships of 1,2,4-Benzotriazine 1,4-Dioxides as Hypoxia-Selective Analogues of Tirapazamine. <i>Journal of Medicinal Chemistry</i> , 2003, 46, 169-182.	2.9	112
8	Selective reaction of glycine residues in hydrogen atom transfer from amino acid derivatives. <i>Journal of the American Chemical Society</i> , 1989, 111, 1047-1052.	6.6	76
9	Targeting growth hormone function: strategies and therapeutic applications. <i>Signal Transduction and Targeted Therapy</i> , 2019, 4, 3.	7.1	74
10	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.	3.2	67
11	Tricyclic [1,2,4]Triazine 1,4-Dioxides As Hypoxia Selective Cytotoxins. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 6853-6865.	2.9	66
12	DNA-Targeted 1,2,4-Benzotriazine 1,4-Dioxides: Potent Analogues of the Hypoxia-Selective Cytotoxin Tirapazamine. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 475-488.	2.9	64
13	Hypoxia-selective antitumor agents. 8. Bis(nitroimidazolyl)alkanecarboxamides: a new class of hypoxia-selective cytotoxins and hypoxic cell radiosensitizers. <i>Journal of Medicinal Chemistry</i> , 1994, 37, 381-391.	2.9	63
14	Chemical Space Mimicry for Drug Discovery. <i>Journal of Chemical Information and Modeling</i> , 2017, 57, 875-882.	2.5	63
15	Synthesis and Evaluation of Nitroheterocyclic Carbamate Prodrugs for Use with Nitroreductase-Mediated Gene-Directed Enzyme Prodrug Therapy. <i>Journal of Medicinal Chemistry</i> , 2003, 46, 5533-5545.	2.9	59
16	Extravascular Transport of Drugs in Tumor Tissue: Effect of Lipophilicity on Diffusion of Tirapazamine Analogues in Multicellular Layer Cultures. <i>Journal of Medicinal Chemistry</i> , 2005, 48, 1079-1087.	2.9	55
17	Spin Trapping of Radicals Other Than the $\cdot\text{OH}$ Radical upon Reduction of the Anticancer Agent Tirapazamine by Cytochrome P ₄₅₀ Reductase. <i>Journal of the American Chemical Society</i> , 2009, 131, 14220-14221.	6.6	55
18	4-Pyridylanilinothiazoles That Selectively Target von Hippel-Lindau Deficient Renal Cell Carcinoma Cells by Inducing Autophagic Cell Death. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 787-797.	2.9	55

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19	A 2-nitroimidazole carbamate prodrug of 5-amino-1-(chloromethyl)-3-[(5,6,7-trimethoxyindol-2-yl)carbonyl]-1,2-dihydro-3H-benz[e]indole (amino-seco-CBI-TMI) for use with ADEPT and GDEPT. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1999, 9, 2237-2242.	1.0	52
20	Next-Generation Hypoxic Cell Radiosensitizers: Nitroimidazole Alkylsulfonamides. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 1241-1254.	2.9	52
21	Selective Potentiation of the Hypoxic Cytotoxicity of Tirapazamine by Its 1-N-Oxide Metabolite SR 4317. <i>Cancer Research</i> , 2004, 64, 736-742.	0.4	48
22	Hypoxia-Selective 3-Alkyl 1,2,4-Benzotriazine 1,4-Dioxides: The Influence of Hydrogen Bond Donors on Extravascular Transport and Antitumor Activity. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 6654-6664.	2.9	43
23	Homologous recombination repair-dependent cytotoxicity of the benzotriazine di-N-oxide CEN-209: Comparison with other hypoxia-activated prodrugs. <i>Biochemical Pharmacology</i> , 2012, 83, 574-585.	2.0	42
24	Substituent effects on the kinetics of reductively-initiated fragmentation of nitrobenzyl carbamates designed as triggers for bioreductive prodrugs. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1999, , 2759-2770.	0.9	40
25	Pharmacokinetic/Pharmacodynamic Model-Guided Identification of Hypoxia-Selective 1,2,4-Benzotriazine 1,4-Dioxides with Antitumor Activity: The Role of Extravascular Transport. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 6392-6404.	2.9	40
26	Characterization of Radicals Formed Following Enzymatic Reduction of 3-Substituted Analogues of the Hypoxia-Selective Cytotoxin 3-Amino-1,2,4-Benzotriazine 1,4-Dioxide (Tirapazamine). <i>Journal of the American Chemical Society</i> , 2010, 132, 2591-2599.	6.6	40
27	Prediction of Tumour Tissue Diffusion Coefficients of Hypoxia-Activated Prodrugs from Physicochemical Parameters. <i>Australian Journal of Chemistry</i> , 2008, 61, 687.	0.5	38
28	Oxidation of 2-Deoxyribose by Benzotriazinyl Radicals of Antitumor 3-Amino-1,2,4-benzotriazine 1,4-Dioxides. <i>Journal of the American Chemical Society</i> , 2004, 126, 7865-7874.	6.6	37
29	Nitroarylmethylcarbamate prodrugs of doxorubicin for use with nitroreductase gene-directed enzyme prodrug therapy. <i>Bioorganic and Medicinal Chemistry</i> , 2005, 13, 4043-4055.	1.4	36
30	Preferential reactivity of glycine residues in free radical reactions of amino acid derivatives. <i>Journal of the Chemical Society Chemical Communications</i> , 1986, , 55.	2.0	35
31	Structure-Activity Relationships for 4-Nitrobenzyl Carbamates of 5-Aminobenz[e]indoline Minor Groove Alkylating Agents as Prodrugs for GDEPT in Conjunction with <i>E.coli</i> Nitroreductase. <i>Journal of Medicinal Chemistry</i> , 2003, 46, 2456-2466.	2.9	35
32	Stille Coupling Reactions in the Synthesis of Hypoxia-Selective 3-Alkyl-1,2,4-Benzotriazine 1,4-Dioxide Anticancer Agents. <i>Journal of Organic Chemistry</i> , 2006, 71, 6530-6535.	1.7	35
33	Design, Synthesis and Evaluation of Imidazolymethyl Carbamate Prodrugs of Alkylating Agents. <i>Tetrahedron</i> , 2000, 56, 645-657.	1.0	34
34	Potentiation of the Cytotoxicity of the Anticancer Agent Tirapazamine by Benzotriazine N-oxides: The Role of Redox Equilibria. <i>Journal of the American Chemical Society</i> , 2006, 128, 245-249.	6.6	34
35	One-Electron Reduction Potential of the Neutral Guanyl Radical in the GC Base Pair of Duplex DNA. <i>Journal of the American Chemical Society</i> , 2009, 131, 5203-5207.	6.6	34
36	Nitrobenzyl carbamate prodrugs of enediynes for nitroreductase gene-directed enzyme prodrug therapy (GDEPT). <i>Bioorganic and Medicinal Chemistry Letters</i> , 1999, 9, 3417-3422.	1.0	33

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37	Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting. <i>Biochemical Pharmacology</i> , 2003, 65, 1807-1815.	2.0	31
38	Radical properties governing the hypoxia-selective cytotoxicity of antitumor 3-amino-1,2,4-benzotriazine 1,4-dioxides. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 2167.	1.5	31
39	¹⁸ F-EF5 PET Imaging as an Early Response Biomarker for the Hypoxia-Activated Prodrug SN30000 Combined with Radiation Treatment in a Non-Small Cell Lung Cancer Xenograft Model. <i>Journal of Nuclear Medicine</i> , 2013, 54, 1339-1346.	2.8	31
40	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.	1.0	26
41	Hypoxia-Selective Antitumor Agents. 10. Bis(nitroimidazoles) and Related Bis(nitroheterocycles): Development of Derivatives with Higher Rates of Metabolic Activation under Hypoxia and Improved Aqueous Solubility. <i>Journal of Medicinal Chemistry</i> , 1995, 38, 1928-1941.	2.9	25
42	Acridine Derivatives as Inhibitors of the IRE1-XBP1 Pathway Are Cytotoxic to Human Multiple Myeloma. <i>Molecular Cancer Therapeutics</i> , 2016, 15, 2055-2065.	1.9	24
43	Enhanced Conversion of DNA Radical Damage to Double Strand Breaks by 1,2,4-Benzotriazine 1,4-Dioxides Linked to a DNA Binder Compared to Tirapazamine. <i>Chemical Research in Toxicology</i> , 2003, 16, 1477-1483.	1.7	23
44	SAR studies of 4-pyridyl heterocyclic anilines that selectively induce autophagic cell death in von Hippel-Lindau-deficient renal cell carcinoma cells. <i>Bioorganic and Medicinal Chemistry</i> , 2011, 19, 3347-3356.	1.4	22
45	Characterisation of radicals formed by the triazine 1,4-dioxide hypoxia-activated prodrug, SN30000. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 3386-3392.	1.5	22
46	Cellular pharmacology of evofosfamide (TH-302): A critical re-evaluation of its bystander effects. <i>Biochemical Pharmacology</i> , 2018, 156, 265-280.	2.0	22
47	Overcoming Radioresistance: Small Molecule Radiosensitisers and Hypoxia-activated Prodrugs. <i>Clinical Oncology</i> , 2019, 31, 290-302.	0.6	22
48	Leaving group effects in reductively triggered fragmentation of 4-nitrobenzyl carbamates. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2000, , 1601-1608.	1.3	21
49	Dynamin impacts homology-directed repair and breast cancer response to chemotherapy. <i>Journal of Clinical Investigation</i> , 2018, 128, 5307-5321.	3.9	20
50	Radical Chemistry and Cytotoxicity of Bioreductive 3-Substituted Quinoxaline Di-N-Oxides. <i>Chemical Research in Toxicology</i> , 2016, 29, 1310-1324.	1.7	19
51	Hypoxia-selective radiosensitisation by SN38023, a bioreductive prodrug of DNA-dependent protein kinase inhibitor IC87361. <i>Biochemical Pharmacology</i> , 2019, 169, 113641.	2.0	19
52	Patient-Derived Xenograft and Organoid Models for Precision Medicine Targeting of the Tumour Microenvironment in Head and Neck Cancer. <i>Cancers</i> , 2020, 12, 3743.	1.7	19
53	Hypoxia-Directed Drug Strategies to Target the Tumor Microenvironment. <i>Advances in Experimental Medicine and Biology</i> , 2014, 772, 111-145.	0.8	19
54	Novel nitroimidazole alkylsulfonamides as hypoxic cell radiosensitisers. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 2123-2132.	1.4	18

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55	Complete ¹ H, ¹³ C and ¹⁵ N NMR assignment of tirapazamine and related 1,2,4-benzotriazine N-oxides. <i>Magnetic Resonance in Chemistry</i> , 2006, 44, 948-954.	1.1	17
56	Identification of Small-Molecule Positive Modulators of Calcitonin-like Receptor-Based Receptors. <i>ACS Pharmacology and Translational Science</i> , 2020, 3, 305-320.	2.5	17
57	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.	1.6	16
58	<i>Pseudomonas aeruginosa</i> NfsB and nitro-CBI-DEI – a promising enzyme/prodrug combination for gene directed enzyme prodrug therapy. <i>Molecular Cancer</i> , 2013, 12, 58.	7.9	13
59	Bromination of N-phthaloylamino acid derivatives. <i>Journal of the Chemical Society Chemical Communications</i> , 1989, , 385.	2.0	12
60	New and versatile syntheses of 3-alkyl- and 3-aryl-1,2,4-benzotriazine 1,4-dioxides: preparation of the bio-reductive cytotoxins SR 4895 and SR 4941. <i>Tetrahedron Letters</i> , 2002, 43, 9569-9571.	0.7	12
61	Studies Towards Hypoxia-Activated Prodrugs of PARP Inhibitors. <i>Molecules</i> , 2019, 24, 1559.	1.7	11
62	Fragmentation of the quinoxaline N-oxide bond to the $\dot{E}^{\text{TM}}\text{OH}$ radical upon one-electron bio-reduction. <i>Chemical Communications</i> , 2014, 50, 13729-13731.	2.2	10
63	Hypoxia-Activated Prodrugs of PERK Inhibitors. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1238-1248.	1.7	10
64	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.	1.6	7
65	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.	0.3	7
66	Characterisation of enzyme prodrug gene therapy combinations in coated spheroids and vascular networks <i>in vitro</i> . <i>Journal of Gene Medicine</i> , 2012, 14, 62-74.	1.4	6
67	Identifying novel targets in renal cell carcinoma: Design and synthesis of affinity chromatography reagents. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 711-720.	1.4	6
68	Subcellular Location of Tirapazamine Reduction Dramatically Affects Aerobic but Not Anoxic Cytotoxicity. <i>Molecules</i> , 2020, 25, 4888.	1.7	4
69	Efficient Protocol for the Identification of Hypoxic Cell Radiosensitisers. <i>Advances in Experimental Medicine and Biology</i> , 2016, 899, 269-290.	0.8	3
70	Benzotriazine Di-Oxide Prodrugs for Exploiting Hypoxia and Low Extracellular pH in Tumors. <i>Molecules</i> , 2019, 24, 2524.	1.7	3
71	Abstract 67: Selective cytotoxic targeting of von Hippel-Lindau-deficient renal cell carcinoma cells. <i>Cancer Research</i> , 2010, 70, 67-67.	0.4	3
72	Spin Trapping Hydroxyl and Aryl Radicals of One-Electron Reduced Anticancer Benzotriazine 1,4-Dioxides. <i>Molecules</i> , 2022, 27, 812.	1.7	1