Tomas Simunek

List of Publications by Year in descending order

95 papers	3,251 citations	147801 31 h-index	155660 55 g-index
98 all docs	98 docs citations	98 times ranked	4223 citing authors

#	Article	IF	Citations
1	Primary prevention of chronic anthracycline cardiotoxicity with ACE inhibitor is temporarily effective in rabbits, but benefits wane in post-treatment follow-up. Clinical Science, 2022, 136, 139-161.	4.3	1
2	Examination of diverse iron-chelating agents for the protection of differentiated PC12 cells against oxidative injury induced by 6-hydroxydopamine and dopamine. Scientific Reports, 2022, 12, .	3.3	2
3	Development of water-soluble prodrugs of the bisdioxopiperazine topoisomerase IIÎ² inhibitor ICRF-193 as potential cardioprotective agents against anthracycline cardiotoxicity. Scientific Reports, 2021, 11, 4456.	3.3	6
4	Structureâ€“Activity Relationship Study of Dexrazoxane Analogues Reveals ICRF-193 as the Most Potent Bisdioxopiperazine against Anthracycline Toxicity to Cardiomyocytes Due to Its Strong Topoisomerase IIÎ² Interactions. Journal of Medicinal Chemistry, 2021, 64, 3997-4019.	6.4	14
5	Prodrug of ICRF-193 provides promising protective effects against chronic anthracycline cardiotoxicity in a rabbit modelin vivo. Clinical Science, 2021, 135, 1897-1914.	4.3	8
6	Clinically Translatable Prevention of Anthracycline Cardiotoxicity by Dexrazoxane Is Mediated by Topoisomerase II Beta and Not Metal Chelation. Circulation: Heart Failure, 2021, 14, e008209.	3.9	24
7	Investigation of Structure-Activity Relationships of Dexrazoxane Analogs Reveals Topoisomerase IIÎ²Interaction as a Prerequisite for Effective Protection against Anthracycline Cardiotoxicity. Journal of Pharmacology and Experimental Therapeutics, 2020, 373, 402-415.	2.5	14
8	In vitro and in vivo investigation of cardiotoxicity associated with anticancer proteasome inhibitors and their combination with anthracycline. Clinical Science, 2019, 133, 1827-1844.	4.3	10
9	UHPLC-MS/MS method for analysis of sobuzoxane, its active form ICRF-154 and metabolite EDTA-diamide and its application to bioactivation study. Scientific Reports, 2019, 9, 4524.	3.3	2
10	Novel SPME fibers based on a plastic support for determination of plasma protein binding of thiosemicarbazone metal chelators: a case example of DpC, an anti-cancer drug that entered clinical trials. Analytical and Bioanalytical Chemistry, 2019, 411, 2383-2394.	3.7	5
11	79â€...Effective cardioprotection against anthracycline cardiotoxicity in isolated cardiomyocytes and rabbits is based on dexrazoxane interaction with topoisomerase II beta instead of iron chelation by its metabolite ADR-925. , 2019, , .		0
12	Cardioprotective Potential of Iron Chelators and Prochelators. Current Medicinal Chemistry, 2019, 26, 288-301.	2.4	16
13	Influence of cationic, anionic or non-charged substituents on photodynamic activity of water-soluble zinc (aza)phthalocyanines. , 2019, , .		0
14	Pharmacokinetics of the Cardioprotective Drug Dexrazoxane and Its Active Metabolite ADR-925 with Focus on Cardiomyocytes and the Heart. Journal of Pharmacology and Experimental Therapeutics, 2018, 364, 433-446.	2.5	15
15	2,6-Dihydroxybenzaldehyde Analogues of the Iron Chelator Salicylaldehyde Isonicotinoyl Hydrazone: Increased Hydrolytic Stability and Cytoprotective Activity against Oxidative Stress. Chemical Research in Toxicology, 2018, 31, 1151-1163.	3.3	7
16	Structureâ€“Activity Relationships of Nitro-Substituted Aroylhydrazone Iron Chelators with Antioxidant and Antiproliferative Activities. Chemical Research in Toxicology, 2018, 31, 435-446.	3.3	5
17	Binding of an amphiphilic phthalocyanine to pre-formed liposomes confers light-triggered cargo release. Journal of Materials Chemistry B, 2018, 6, 7298-7305.	5.8	30
18	Intravenous rutin in rat exacerbates isoprenaline-induced cardiotoxicity likely due to intracellular oxidative stress. Redox Report, 2017, 22, 78-90.	4.5	6

#	Article	IF	Citations
19	Investigation of novel dexrazoxane analogue JR-311 shows significant cardioprotective effects through topoisomerase IIbeta but not its iron chelating metabolite. Toxicology, 2017, 392, 1-10.	4.2	25
20	Pharmacy Practice and Education in the Czech Republic. Pharmacy (Basel, Switzerland), 2017, 5, 54.	1.6	5
21	Protective Effects of D-Penicillamine on Catecholamine-Induced Myocardial Injury. Oxidative Medicine and Cellular Longevity, 2016, 2016, 1-10.	4.0	4
22	Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. Toxicology, 2016, 350-352, 15-24.	4.2	10
23	Aroylhydrazone iron chelators: Tuning antioxidant and antiproliferative properties by hydrazide modifications. European Journal of Medicinal Chemistry, 2016, 120, 97-110.	5.5	31
24	Tetra(3,4-pyrido)porphyrazines Caught in the Cationic Cage: Toward Nanomolar Active Photosensitizers. Journal of Medicinal Chemistry, 2016, 59, 9443-9456.	6.4	31
25	Large-Scale Synthesis of Piperazine-2,6-dione and Its Use in the Synthesis of Dexrazoxane Analogues. Synthesis, 2016, 48, 4580-4588.	2.3	3
26	Are cardioprotective effects of NO-releasing drug molsidomine translatable to chronic anthracycline cardiotoxicity settings?. Toxicology, 2016, 372, 52-63.	4.2	1
27	Cardioprotective effects of iron chelator HAPI and ROS-activated boronate prochelator BHAPI against catecholamine-induced oxidative cellular injury. Toxicology, 2016, 371, 17-28.	4.2	14
28	Anionic hexadeca-carboxylate tetrapyrazinoporphyrazine: synthesis and in vitro photodynamic studies of a water-soluble, non-aggregating photosensitizer. RSC Advances, 2016, 6, 10064-10077.	3.6	17
29	Cardioprotective effects of inorganic nitrate/nitrite in chronic anthracycline cardiotoxicity: Comparison with dexrazoxane. Journal of Molecular and Cellular Cardiology, 2016, 91, 92-103.	1.9	20
30	Synthesis and analysis of novel analogues of dexrazoxane and its open-ring hydrolysis product for protection against anthracycline cardiotoxicity in vitro and in vivo. Toxicology Research, 2015, 4, 1098-1114.	2.1	20
31	Proteomic investigation of embryonic rat heart-derived H9c2 cell line sheds new light on the molecular phenotype of the popular cell model. Experimental Cell Research, 2015, 339, 174-186.	2.6	13
32	Far-Red-Absorbing Cationic Phthalocyanine Photosensitizers: Synthesis and Evaluation of the Photodynamic Anticancer Activity and the Mode of Cell Death Induction. Journal of Medicinal Chemistry, 2015, 58, 1736-1749.	6.4	95
33	Heteroatom-substituted tetra(3,4-pyrido)porphyrazines: a stride toward near-infrared-absorbing macrocycles. Organic and Biomolecular Chemistry, 2015, 13, 5608-5612.	2.8	15
34	LCâ€“UV/MS methods for the analysis of prochelatorâ€”Boronyl salicylaldehyde isonicotinoyl hydrazone (BSIH) and its active chelator salicylaldehyde isonicotinoyl hydrazone (SIH). Journal of Pharmaceutical and Biomedical Analysis, 2015, 105, 55-63.	2.8	13
35	In Vitro Characterization of the Pharmacological Properties of the Anti-Cancer Chelator, Bp4eT, and Its Phase I Metabolites. PLoS ONE, 2015, 10, e0139929.	2.5	7
36	Novel and potent anti-tumor and anti-metastatic di-2-pyridylketone thiosemicarbazones demonstrate marked differences in pharmacology between the first and second generation lead agents. Oncotarget, 2015, 6, 42411-42428.	1.8	34

#	Article	IF	Citations
37	Quantitative Analysis of the Anti-Proliferative Activity of Combinations of Selected Iron-Chelating Agents and Clinically Used Anti-Neoplastic Drugs. PLoS ONE, 2014, 9, e88754.	2.5	23
38	STUDY OF MOLECULAR MECHANISMS INVOLVED IN CARDIOPROTECTIVE ACTION OF DEXRAZOXANE AGAINST ANTHRACYCLINE CARDIOTOXICITY IN RABBITS. Heart, 2014, 100, A7.3-A8.	2.9	0
39	ANTHRACYCLINE CARDIOTOXICITY: THE PHARMACOKINETICS AND PHARMACODYNAMICS OF DEXRAZOXANE AND ITS OPEN RING METABOLITE. Heart, 2014, 100, A7.1-A7.	2.9	0
40	Structure-Activity Relationships of Novel Salicylaldehyde Isonicotinoyl Hydrazone (SIH) Analogs: Iron Chelation, Anti-Oxidant and Cytotoxic Properties. PLoS ONE, 2014, 9, e112059.	2.5	15
41	CAN INORGANIC NITRATE/NITRITE EFFECTIVELY OVERCOME CHRONIC ANTHRACYCLINE CARDIOTOXICITY IN RABBITS?. Heart, 2014, 100, A8.1-A8.	2.9	0
42	Comparison of various iron chelators and prochelators as protective agents against cardiomyocyte oxidative injury. Free Radical Biology and Medicine, 2014, 74, 210-221.	2.9	28
43	Simultaneous determination of the novel thiosemicarbazone antiâ€cancer agent, Bp4eT, and its main phase I metabolites in plasma: Application to a pilot pharmacokinetic study in rats. Biomedical Chromatography, 2014, 28, 621-629.	1.7	7
44	Molecular Remodeling of Left and Right Ventricular Myocardium in Chronic Anthracycline Cardiotoxicity and Post-Treatment Follow Up. PLoS ONE, 2014, 9, e96055.	2.5	38
45	Exploring the Anti-Cancer Activity of Novel Thiosemicarbazones Generated through the Combination of Retro-Fragments: Dissection of Critical Structure-Activity Relationships. PLoS ONE, 2014, 9, e110291.	2.5	61
46	Water-soluble non-aggregating zinc phthalocyanine and in vitro studies for photodynamic therapy. Chemical Communications, 2013, 49, 11149.	4.1	133
47	Early and delayed cardioprotective intervention with dexrazoxane each show different potential for prevention of chronic anthracycline cardiotoxicity in rabbits. Toxicology, 2013, 311, 191-204.	4.2	28
48	Development of LCâ€“MS/MS method for the simultaneous analysis of the cardioprotective drug dexrazoxane and its metabolite ADR-925 in isolated cardiomyocytes and cell culture medium. Journal of Pharmaceutical and Biomedical Analysis, 2013, 76, 243-251.	2.8	9
49	Oxidative Stress, Redox Signaling, and Metal Chelation in Anthracycline Cardiotoxicity and Pharmacological Cardioprotection. Antioxidants and Redox Signaling, 2013, 18, 899-929.	5.4	267
50	Amino acid derivatives as transdermal permeation enhancers. Journal of Controlled Release, 2013, 165, 91-100.	9.9	37
51	Catalytic Inhibitors of Topoisomerase II Differently Modulate the Toxicity of Anthracyclines in Cardiac and Cancer Cells. PLoS ONE, 2013, 8, e76676.	2.5	58
52	Chronic Anthracycline Cardiotoxicity: Molecular and Functional Analysis with Focus on Nuclear Factor Erythroid 2-Related Factor 2 and Mitochondrial Biogenesis Pathways. Journal of Pharmacology and Experimental Therapeutics, 2012, 343, 468-478.	2.5	48
53	DNA topoisomerase IIÎ²: A player in regulation of gene expression and cell differentiation. International Journal of Biochemistry and Cell Biology, 2012, 44, 834-837.	2.8	16
54	Methyl and ethyl ketone analogs of salicylaldehyde isonicotinoyl hydrazone: Novel iron chelators with selective antiproliferative action. Chemico-Biological Interactions, 2012, 197, 69-79.	4.0	41

#	Article	IF	Citations
55	Proteomic insights into chronic anthracycline cardiotoxicity. Journal of Molecular and Cellular Cardiology, 2011, 50, 849-862.	1.9	57
56	Comparison of various iron chelators used in clinical practice as protecting agents against catecholamine-induced oxidative injury and cardiotoxicity. Toxicology, 2011, 289, 122-131.	4.2	35
57	Iron chelation with salicylaldehyde isonicotinoyl hydrazone protects against catecholamine autoxidation and cardiotoxicity. Free Radical Biology and Medicine, 2011, 50, 537-549.	2.9	42
58	Synthesis and Initial in Vitro Evaluations of Novel Antioxidant Aroylhydrazone Iron Chelators with Increased Stability against Plasma Hydrolysis. Chemical Research in Toxicology, 2011, 24, 290-302.	3.3	52
59	In vivo and in vitro assessment of the role of glutathione antioxidant system in anthracycline-induced cardiotoxicity. Archives of Toxicology, 2011, 85, 525-535.	4.2	24
60	Comparison of Clinically Used and Experimental Iron Chelators for Protection against Oxidative Stress-Induced Cellular Injury. Chemical Research in Toxicology, 2010, 23, 1105-1114.	3.3	61
61	Dexrazoxane-afforded protection against chronic anthracycline cardiotoxicity in vivo: effective rescue of cardiomyocytes from apoptotic cell death. British Journal of Cancer, 2009, 101, 792-802.	6.4	53
62	Direct administration of rutin does not protect against catecholamine cardiotoxicity. Toxicology, 2009, 255, 25-32.	4.2	15
63	The Novel Iron Chelator, 2-Pyridylcarboxaldehyde 2-Thiophenecarboxyl Hydrazone, Reduces Catecholamine-Mediated Myocardial Toxicity. Chemical Research in Toxicology, 2009, 22, 208-217.	3.3	27
64	Anthracycline-induced cardiotoxicity: Overview of studies examining the roles of oxidative stress and free cellular iron. Pharmacological Reports, 2009, 61, 154-171.	3.3	633
65	Anthracycline toxicity to cardiomyocytes or cancer cells is differently affected by iron chelation with salicylaldehyde isonicotinoyl hydrazone. British Journal of Pharmacology, 2008, 155, 138-148.	5.4	42
66	Comparison of protection by salicylaldehyde isonicotinoyl hydrazone (SIH) against hydrogen peroxide- and anthracycline-induced toxicity to cardiac cells. Toxicology Letters, 2008, 180, S117.	0.8	0
67	Pyridoxal Isonicotinoyl Hydrazone (PIH) and its Analogs as Protectants Against Anthracycline-Induced Cardiotoxicity. Hemoglobin, 2008, 32, 207-215.	0.8	8
68	Deferiprone Does Not Protect against Chronic Anthracycline Cardiotoxicity in Vivo. Journal of Pharmacology and Experimental Therapeutics, 2008, 326, 259-269.	2.5	43
69	Flavonoids as protectors against doxorubicin cardiotoxicity: Role of iron chelation, antioxidant activity and inhibition of carbonyl reductase. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 1065-1074.	3.8	97
70	Iron chelation-afforded cardioprotection against chronic anthracycline cardiotoxicity: A study of salicylaldehyde isonicotinoyl hydrazone (SIH). Toxicology, 2007, 235, 150-166.	4.2	32
71	New iron chelators in anthracycline-induced cardiotoxicity. Cardiovascular Toxicology, 2007, 7, 145-150.	2.7	30
72	In vitro and in vivo examination of cardiac troponins as biochemical markers of drug-induced cardiotoxicity. Toxicology, 2007, 237, 218-228.	4.2	55

#	Article	IF	Citations
73	A Pilot Study of Matrix Metalloproteinases on the Model of Daunorubicin-induced Cardiomyopathy in Rabbits. Acta Medica (Hradec Kralove), 2007, 50, 109-111.	0.5	1
74	The role of reactive oxygen and nitrogen species in cellular iron metabolism. Free Radical Research, 2006, 40, 263-272.	3.3	75
75	Cardioprotective Effects of a Novel Iron Chelator, Pyridoxal 2-Chlorobenzoyl Hydrazone, in the Rabbit Model of Daunorubicin-Induced Cardiotoxicity. Journal of Pharmacology and Experimental Therapeutics, 2006, 319, 1336-1347.	2.5	40
76	Cardiac remodeling and the role of matrix metalloproteinases in chronic anthracycline cardiotoxicity. Journal of Molecular and Cellular Cardiology, 2006, 40, 1001.	1.9	1
77	Iron is not involved in oxidative stress-mediated cytotoxicity of doxorubicin and bleomycin. British Journal of Pharmacology, 2006, 149, 920-930.	5.4	42
78	Myocardial regulatory proteins and heart failure. European Journal of Heart Failure, 2006, 8, 333-342.	7.1	29
79	Myocardial content of selected elements in experimental anthracycline-induced cardiomyopathy in rabbits. BioMetals, 2005, 18, 163-169.	4.1	20
80	Troponin as a marker of myocardiac damage in drug-induced cardiotoxicity. Expert Opinion on Drug Safety, 2005, 4, 457-472.	2.4	64
81	Safety and tolerability of repeated administration of pyridoxal 2-chlorobenzoyl hydrazone in rabbits. Human and Experimental Toxicology, 2005, 24, 581-589.	2.2	12
82	SIHâ€"a novel lipophilic iron chelatorâ€"protects H9c2 cardiomyoblasts from oxidative stress-induced mitochondrial injury and cell death. Journal of Molecular and Cellular Cardiology, 2005, 39, 345-354.	1.9	85
83	Study of daunorubicin cardiotoxicity prevention with pyridoxal isonicotinoyl hydrazone in rabbits. Pharmacological Research, 2005, 51, 223-231.	7.1	39
84	The Fate of Iron in The Organism and Its Regulatory Pathways. Acta Medica (Hradec Kralove), 2005, 48, 127-135.	0.5	7
85	The fate of iron in the organism and its regulatory pathways. Acta Medica (Hradec Kralove), 2005, 48, 127-35.	0.5	4
86	Rabbit model for in vivo study of anthracycline-induced heart failure and for the evaluation of protective agents. European Journal of Heart Failure, 2004, 6, 377-387.	7.1	52
87	Cardiac troponin T as an indicator of reduced left ventricular contractility in experimental anthracycline-induced cardiomyopathy. Cancer Chemotherapy and Pharmacology, 2003, 52, 431-434.	2.3	13
88	A Study of Potential Toxic Effects After Repeated 10-Week Administration of a New Iron Chelator â€“ Salicylaldehyde Isonicotinoyl Hydrazone (SIH) to Rabbits. Acta Medica (Hradec Kralove), 2003, 46, 163-170.	0.5	17
89	A study of potential toxic effects after repeated 10-week administration of a new iron chelator--salicylaldehyde isonicotinoyl hydrazone (SIH) to rabbits. Acta Medica (Hradec Kralove), 2003, 46, 163-70.	0.5	13
90	Comparative study of chronic toxic effects of daunorubicin and doxorubicin in rabbits. Human and Experimental Toxicology, 2002, 21, 649-657.	2.2	36

#	Article	IF	Citations
91	Troponins for predicting cardiotoxic or cardioprotective effects of new drugs. Journal of Molecular and Cellular Cardiology, 2002, 34, A3.	1.9	0
92	Troponins in Experimental Studies. Acta Medica (Hradec Kralove), 2002, 45, 29-32.	0.5	2
93	Effect of Sodium 2,3-Dimercaptopropane-1-Sulphonate (DMPS) on Chronic Daunorubicin Toxicity in Rabbits: Comparison with Dexrazoxane. Acta Medica (Hradec Kralove), 2002, 45, 99-105.	0.5	2
94	Effect of sodium 2,3-dimercaptopropane-1-sulphonate (DMPS) on chronic daunorubicin toxicity in rabbits: comparison with dexrazoxane. Acta Medica (Hradec Kralove), 2002, 45, 99-105.	0.5	2
95	Anthracycline-Induced Cardiotoxicity. Acta Medica (Hradec Kralove), 2000, 43, 75-82.	0.5	57