Tomas Simunek

List of Publications by Citations

88 papers	2,644 citations	28 h-index	49 g-index
98 ext. papers	2,942 ext. citations	4.6 avg, IF	4.51 L-index

#	Paper	IF	Citations
88	Anthracycline-induced cardiotoxicity: overview of studies examining the roles of oxidative stress and free cellular iron. *Pharmacological Reports*, **2009**, 61, 154-71	3.9	526
87	Oxidative stress, redox signaling, and metal chelation in anthracycline cardiotoxicity and pharmacological cardioprotection. *Antioxidants and Redox Signaling*, **2013**, 18, 899-929	8.4	219
86	Water-soluble non-aggregating zinc phthalocyanine and in vitro studies for photodynamic therapy. *Chemical Communications*, **2013**, 49, 11149-51	5.8	110
85	SIH--a novel lipophilic iron chelator--protects H9c2 cardiomyoblasts from oxidative stress-induced mitochondrial injury and cell death. *Journal of Molecular and Cellular Cardiology*, **2005**, 39, 345-54	5.8	80
84	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, 1065-74	6.9	79
83	The role of reactive oxygen and nitrogen species in cellular iron metabolism. *Free Radical Research*, **2006**, 40, 263-72	4	70
82	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, 1736-49	8.3	68
81	Troponin as a marker of myocardiac damage in drug-induced cardiotoxicity. *Expert Opinion on Drug Safety*, **2005**, 4, 457-72	4.1	58
80	Comparison of clinically used and experimental iron chelators for protection against oxidative stress-induced cellular injury. *Chemical Research in Toxicology*, **2010**, 23, 1105-14	4	53
79	Catalytic inhibitors of topoisomerase II differently modulate the toxicity of anthracyclines in cardiac and cancer cells. *PLoS ONE*, **2013**, 8, e76676	3.7	50
78	Proteomic insights into chronic anthracycline cardiotoxicity. *Journal of Molecular and Cellular Cardiology*, **2011**, 50, 849-62	5.8	48
77	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	4	48
76	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	3.7	48
75	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	8.7	45
74	In vitro and in vivo examination of cardiac troponins as biochemical markers of drug-induced cardiotoxicity. *Toxicology*, **2007**, 237, 218-228	4.4	45
73	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, 377-87	12.3	43
72	Deferiprone does not protect against chronic anthracycline cardiotoxicity in vivo. *Journal of Pharmacology and Experimental Therapeutics*, **2008**, 326, 259-69	4.7	40

71	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, 468-78	4.7	39
70	Anthracycline toxicity to cardiomyocytes or cancer cells is differently affected by iron chelation with salicylaldehyde isonicotinoyl hydrazone. *British Journal of Pharmacology*, **2008**, 155, 138-48	8.6	39
69	Iron chelation with salicylaldehyde isonicotinoyl hydrazone protects against catecholamine autoxidation and cardiotoxicity. *Free Radical Biology and Medicine*, **2011**, 50, 537-49	7.8	38
68	Iron is not involved in oxidative stress-mediated cytotoxicity of doxorubicin and bleomycin. *British Journal of Pharmacology*, **2006**, 149, 920-30	8.6	38
67	Study of daunorubicin cardiotoxicity prevention with pyridoxal isonicotinoyl hydrazone in rabbits. *Pharmacological Research*, **2005**, 51, 223-31	10.2	37
66	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, 1336-47	4.7	37
65	Anthracycline-Induced Cardiotoxicity. *Acta Medica (Hradec Kralove)*, **2000**, 43, 75-82	0.8	35
64	Methyl and ethyl ketone analogs of salicylaldehyde isonicotinoyl hydrazone: novel iron chelators with selective antiproliferative action. *Chemico-Biological Interactions*, **2012**, 197, 69-79	5	34
63	Comparative study of chronic toxic effects of daunorubicin and doxorubicin in rabbits. *Human and Experimental Toxicology*, **2002**, 21, 649-57	3.4	31
62	Amino acid derivatives as transdermal permeation enhancers. *Journal of Controlled Release*, **2013**, 165, 91-100	11.7	30
61	Iron chelation-afforded cardioprotection against chronic anthracycline cardiotoxicity: a study of salicylaldehyde isonicotinoyl hydrazone (SIH). *Toxicology*, **2007**, 235, 150-66	4.4	29
60	Comparison of various iron chelators used in clinical practice as protecting agents against catecholamine-induced oxidative injury and cardiotoxicity. *Toxicology*, **2011**, 289, 122-31	4.4	28
59	The novel iron chelator, 2-pyridylcarboxaldehyde 2-thiophenecarboxyl hydrazone, reduces catecholamine-mediated myocardial toxicity. *Chemical Research in Toxicology*, **2009**, 22, 208-17	4	26
58	New iron chelators in anthracycline-induced cardiotoxicity. *Cardiovascular Toxicology*, **2007**, 7, 145-50	3.4	25
57	Molecular remodeling of left and right ventricular myocardium in chronic anthracycline cardiotoxicity and post-treatment follow up. *PLoS ONE*, **2014**, 9, e96055	3.7	25
56	Comparison of various iron chelators and prochelators as protective agents against cardiomyocyte oxidative injury. *Free Radical Biology and Medicine*, **2014**, 74, 210-21	7.8	24
55	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, 42411-28	3.3	23
54	Aroylhydrazone iron chelators: Tuning antioxidant and antiproliferative properties by hydrazide modifications. *European Journal of Medicinal Chemistry*, **2016**, 120, 97-110	6.8	23

53	Myocardial regulatory proteins and heart failure. *European Journal of Heart Failure*, **2006**, 8, 333-42	12.3	22
52	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	4.4	20
51	Early and delayed cardioprotective intervention with dexrazoxane each show different potential for prevention of chronic anthracycline cardiotoxicity in rabbits. *Toxicology*, **2013**, 311, 191-204	4.4	20
50	Tetra(3,4-pyrido)porphyrazines Caught in the Cationic Cage: Toward Nanomolar Active Photosensitizers. *Journal of Medicinal Chemistry*, **2016**, 59, 9443-9456	8.3	20
49	Cardioprotective effects of inorganic nitrate/nitrite in chronic anthracycline cardiotoxicity: Comparison with dexrazoxane. *Journal of Molecular and Cellular Cardiology*, **2016**, 91, 92-103	5.8	19
48	Binding of an amphiphilic phthalocyanine to pre-formed liposomes confers light-triggered cargo release. *Journal of Materials Chemistry B*, **2018**, 6, 7298-7305	7.3	19
47	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	2.6	18
46	In vivo and in vitro assessment of the role of glutathione antioxidant system in anthracycline-induced cardiotoxicity. *Archives of Toxicology*, **2011**, 85, 525-35	5.8	18
45	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	3.7	17
44	Myocardial content of selected elements in experimental anthracycline-induced cardiomyopathy in rabbits. *BioMetals*, **2005**, 18, 163-9	3.4	17
43	DNA topoisomerase II□a player in regulation of gene expression and cell differentiation. *International Journal of Biochemistry and Cell Biology*, **2012**, 44, 834-7	5.6	15
42	Direct administration of rutin does not protect against catecholamine cardiotoxicity. *Toxicology*, **2009**, 255, 25-32	4.4	15
41	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, 163-170	0.8	15
40	Heteroatom-substituted tetra(3,4-pyrido)porphyrazines: a stride toward near-infrared-absorbing macrocycles. *Organic and Biomolecular Chemistry*, **2015**, 13, 5608-12	3.9	13
39	Structure-activity relationships of novel salicylaldehyde isonicotinoyl hydrazone (SIH) analogs: iron chelation, anti-oxidant and cytotoxic properties. *PLoS ONE*, **2014**, 9, e112059	3.7	13
38	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	0.8	13
37	Anionic hexadeca-carboxylate tetrapyrazinoporphyrazine: synthesis and in vitro photodynamic studies of a water-soluble, non-aggregating photosensitizer. *RSC Advances*, **2016**, 6, 10064-10077	3.7	12
36	Cardioprotective effects of iron chelator HAPI and ROS-activated boronate prochelator BHAPI against catecholamine-induced oxidative cellular injury. *Toxicology*, **2016**, 371, 17-28	4.4	11

35	Cardioprotective Potential of Iron Chelators and Prochelators. *Current Medicinal Chemistry*, **2019**, 26, 288-301	4.3	11
34	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, 174-86	4.2	10
33	Safety and tolerability of repeated administration of pyridoxal 2-chlorobenzoyl hydrazone in rabbits. *Human and Experimental Toxicology*, **2005**, 24, 581-9	3.4	10
32	Cardiac troponin T as an indicator of reduced left ventricular contractility in experimental anthracycline-induced cardiomyopathy. *Cancer Chemotherapy and Pharmacology*, **2003**, 52, 431-4	3.5	10
31	LC-UV/MS methods for the analysis of prochelator-boronyl salicylaldehyde isonicotinoyl hydrazone (BSIH) and its active chelator salicylaldehyde isonicotinoyl hydrazone (SIH). *Journal of Pharmaceutical and Biomedical Analysis*, **2015**, 105, 55-63	3.5	9
30	Development of LC-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, 243-51	3.5	9
29	Investigation of Structure-Activity Relationships of Dexrazoxane Analogs Reveals Topoisomerase II Interaction as a Prerequisite for Effective Protection against Anthracycline Cardiotoxicity. *Journal of Pharmacology and Experimental Therapeutics*, **2020**, 373, 402-415	4.7	8
28	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	4.7	8
27	Pyridoxal isonicotinoyl hydrazone (PIH) and its analogs as protectants against anthracycline-induced cardiotoxicity. *Hemoglobin*, **2008**, 32, 207-15	0.6	8
26	Simultaneous determination of the novel thiosemicarbazone anti-cancer agent, Bp4eT, and its main phase I metabolites in plasma: application to a pilot pharmacokinetic study in rats. *Biomedical Chromatography*, **2014**, 28, 621-9	1.7	7
25	Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. *Toxicology*, **2016**, 350-352, 15-24	4.4	7
24	In Vitro Characterization of the Pharmacological Properties of the Anti-Cancer Chelator, Bp4eT, and Its Phase I Metabolites. *PLoS ONE*, **2015**, 10, e0139929	3.7	6
23	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	4	6
22	Intravenous rutin in rat exacerbates isoprenaline-induced cardiotoxicity likely due to intracellular oxidative stress. *Redox Report*, **2017**, 22, 78-90	5.9	4
21	and investigation of cardiotoxicity associated with anticancer proteasome inhibitors and their combination with anthracycline. *Clinical Science*, **2019**, 133, 1827-1844	6.5	4
20	Pharmacy Practice and Education in the Czech Republic. *Pharmacy (Basel, Switzerland)*, **2017**, 5,	2	4
19	The Fate of Iron in The Organism and Its Regulatory Pathways. *Acta Medica (Hradec Kralove)*, **2005**, 48, 127-135	0.8	4
18	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	4.4	4

17	The fate of iron in the organism and its regulatory pathways. *Acta Medica (Hradec Kralove)*, **2005**, 48, 127-35	0.8	4
16	Protective Effects of D-Penicillamine on Catecholamine-Induced Myocardial Injury. *Oxidative Medicine and Cellular Longevity*, **2016**, 2016, 5213532	6.7	3
15	Structure-Activity Relationships of Nitro-Substituted Aroylhydrazone Iron Chelators with Antioxidant and Antiproliferative Activities. *Chemical Research in Toxicology*, **2018**, 31, 435-446	4	3
14	Large-Scale Synthesis of Piperazine-2,6-dione and Its Use in the Synthesis of Dexrazoxane Analogues. *Synthesis*, **2016**, 48, 4580-4588	2.9	2
13	Troponins in Experimental Studies. *Acta Medica (Hradec Kralove)*, **2002**, 45, 29-32	0.8	2
12	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	0.8	2
11	Clinically Translatable Prevention of Anthracycline Cardiotoxicity by Dexrazoxane Is Mediated by Topoisomerase II Beta and Not Metal Chelation. *Circulation: Heart Failure*, **2021**, 14, e008209	7.6	2
10	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	0.8	2
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	4.9	1
8	Are cardioprotective effects of NO-releasing drug molsidomine translatable to chronic anthracycline cardiotoxicity settings?. *Toxicology*, **2016**, 372, 52-63	4.4	1
7	A Pilot Study of Matrix Metalloproteinases on the Model of Daunorubicin-induced Cardiomyopathy in Rabbits. *Acta Medica (Hradec Kralove)*, **2007**, 50, 109-111	0.8	1
6	Structure-Activity Relationship Study of Dexrazoxane Analogues Reveals ICRF-193 as the Most Potent Bisdioxopiperazine against Anthracycline Toxicity to Cardiomyocytes Due to Its Strong Topoisomerase II□Interactions. *Journal of Medicinal Chemistry*, **2021**, 64, 3997-4019	8.3	1
5	Development of water-soluble prodrugs of the bisdioxopiperazine topoisomerase II□inhibitor ICRF-193 as potential cardioprotective agents against anthracycline cardiotoxicity. *Scientific Reports*, **2021**, 11, 4456	4.9	1
4	Prodrug of ICRF-193 provides promising protective effects against chronic anthracycline cardiotoxicity in a rabbit model in vivo. *Clinical Science*, **2021**, 135, 1897-1914	6.5	1
3	STUDY OF MOLECULAR MECHANISMS INVOLVED IN CARDIOPROTECTIVE ACTION OF DEXRAZOXANE AGAINST ANTHRACYCLINE CARDIOTOXICITY IN RABBITS. *Heart*, **2014**, 100, A7.3-A8	5.1	
2	ANTHRACYCLINE CARDIOTOXICITY: THE PHARMACOKINETICS AND PHARMACODYNAMICS OF DEXRAZOXANE AND ITS OPEN RING METABOLITE. *Heart*, **2014**, 100, A7.1-A7	5.1	
1	CAN INORGANIC NITRATE/NITRITE EFFECTIVELY OVERCOME CHRONIC ANTHRACYCLINE CARDIOTOXICITY IN RABBITS?. *Heart*, **2014**, 100, A8.1-A8	5.1	