

# Tomas Simunek

## List of Publications by Year in descending order

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95  
papers

3,251  
citations

147566

31  
h-index

155451

55  
g-index

98  
all docs

98  
docs citations

98  
times ranked

4223  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anthracycline-induced cardiotoxicity: Overview of studies examining the roles of oxidative stress and free cellular iron. <i>Pharmacological Reports</i> , 2009, 61, 154-171.	1.5	633
2	Oxidative Stress, Redox Signaling, and Metal Chelation in Anthracycline Cardiotoxicity and Pharmacological Cardioprotection. <i>Antioxidants and Redox Signaling</i> , 2013, 18, 899-929.	2.5	267
3	Water-soluble non-aggregating zinc phthalocyanine and in vitro studies for photodynamic therapy. <i>Chemical Communications</i> , 2013, 49, 11149.	2.2	133
4	Flavonoids as protectors against doxorubicin cardiotoxicity: Role of iron chelation, antioxidant activity and inhibition of carbonyl reductase. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2007, 1772, 1065-1074.	1.8	97
5	Far-Red-Absorbing Cationic Phthalocyanine Photosensitizers: Synthesis and Evaluation of the Photodynamic Anticancer Activity and the Mode of Cell Death Induction. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 1736-1749.	2.9	95
6	SIHâ€”a novel lipophilic iron chelatorâ€”protects H9c2 cardiomyoblasts from oxidative stress-induced mitochondrial injury and cell death. <i>Journal of Molecular and Cellular Cardiology</i> , 2005, 39, 345-354.	0.9	85
7	The role of reactive oxygen and nitrogen species in cellular iron metabolism. <i>Free Radical Research</i> , 2006, 40, 263-272.	1.5	75
8	Troponin as a marker of myocardial damage in drug-induced cardiotoxicity. <i>Expert Opinion on Drug Safety</i> , 2005, 4, 457-472.	1.0	64
9	Comparison of Clinically Used and Experimental Iron Chelators for Protection against Oxidative Stress-Induced Cellular Injury. <i>Chemical Research in Toxicology</i> , 2010, 23, 1105-1114.	1.7	61
10	Exploring the Anti-Cancer Activity of Novel Thiosemicarbazones Generated through the Combination of Retro-Fragments: Dissection of Critical Structure-Activity Relationships. <i>PLoS ONE</i> , 2014, 9, e110291.	1.1	61
11	Catalytic Inhibitors of Topoisomerase II Differently Modulate the Toxicity of Anthracyclines in Cardiac and Cancer Cells. <i>PLoS ONE</i> , 2013, 8, e76676.	1.1	58
12	Proteomic insights into chronic anthracycline cardiotoxicity. <i>Journal of Molecular and Cellular Cardiology</i> , 2011, 50, 849-862.	0.9	57
13	Anthracycline-Induced Cardiotoxicity. <i>Acta Medica (Hradec Kralove)</i> , 2000, 43, 75-82.	0.2	57
14	In vitro and in vivo examination of cardiac troponins as biochemical markers of drug-induced cardiotoxicity. <i>Toxicology</i> , 2007, 237, 218-228.	2.0	55
15	Dexrazoxane-afforded protection against chronic anthracycline cardiotoxicity in vivo: effective rescue of cardiomyocytes from apoptotic cell death. <i>British Journal of Cancer</i> , 2009, 101, 792-802.	2.9	53
16	Rabbit model for in vivo study of anthracycline-induced heart failure and for the evaluation of protective agents. <i>European Journal of Heart Failure</i> , 2004, 6, 377-387.	2.9	52
17	Synthesis and Initial <i>in Vitro</i> Evaluations of Novel Antioxidant Aroylhydrazone Iron Chelators with Increased Stability against Plasma Hydrolysis. <i>Chemical Research in Toxicology</i> , 2011, 24, 290-302.	1.7	52
18	Chronic Anthracycline Cardiotoxicity: Molecular and Functional Analysis with Focus on Nuclear Factor Erythroid 2-Related Factor 2 and Mitochondrial Biogenesis Pathways. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2012, 343, 468-478.	1.3	48

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19	Deferiprone Does Not Protect against Chronic Anthracycline Cardiotoxicity in Vivo. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 326, 259-269.	1.3	43
20	Iron is not involved in oxidative stress-mediated cytotoxicity of doxorubicin and bleomycin. <i>British Journal of Pharmacology</i> , 2006, 149, 920-930.	2.7	42
21	Anthracycline toxicity to cardiomyocytes or cancer cells is differently affected by iron chelation with salicylaldehyde isonicotinoyl hydrazone. <i>British Journal of Pharmacology</i> , 2008, 155, 138-148.	2.7	42
22	Iron chelation with salicylaldehyde isonicotinoyl hydrazone protects against catecholamine autoxidation and cardiotoxicity. <i>Free Radical Biology and Medicine</i> , 2011, 50, 537-549.	1.3	42
23	Methyl and ethyl ketone analogs of salicylaldehyde isonicotinoyl hydrazone: Novel iron chelators with selective antiproliferative action. <i>Chemico-Biological Interactions</i> , 2012, 197, 69-79.	1.7	41
24	Cardioprotective Effects of a Novel Iron Chelator, Pyridoxal 2-Chlorobenzoyl Hydrazone, in the Rabbit Model of Daunorubicin-Induced Cardiotoxicity. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2006, 319, 1336-1347.	1.3	40
25	Study of daunorubicin cardiotoxicity prevention with pyridoxal isonicotinoyl hydrazone in rabbits. <i>Pharmacological Research</i> , 2005, 51, 223-231.	3.1	39
26	Molecular Remodeling of Left and Right Ventricular Myocardium in Chronic Anthracycline Cardiotoxicity and Post-Treatment Follow Up. <i>PLoS ONE</i> , 2014, 9, e96055.	1.1	38
27	Amino acid derivatives as transdermal permeation enhancers. <i>Journal of Controlled Release</i> , 2013, 165, 91-100.	4.8	37
28	Comparative study of chronic toxic effects of daunorubicin and doxorubicin in rabbits. <i>Human and Experimental Toxicology</i> , 2002, 21, 649-657.	1.1	36
29	Comparison of various iron chelators used in clinical practice as protecting agents against catecholamine-induced oxidative injury and cardiotoxicity. <i>Toxicology</i> , 2011, 289, 122-131.	2.0	35
30	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. <i>Oncotarget</i> , 2015, 6, 42411-42428.	0.8	34
31	Iron chelation-afforded cardioprotection against chronic anthracycline cardiotoxicity: A study of salicylaldehyde isonicotinoyl hydrazone (SIH). <i>Toxicology</i> , 2007, 235, 150-166.	2.0	32
32	Aroylhydrazone iron chelators: Tuning antioxidant and antiproliferative properties by hydrazide modifications. <i>European Journal of Medicinal Chemistry</i> , 2016, 120, 97-110.	2.6	31
33	Tetra(3,4-pyrido)porphyrazines Caught in the Cationic Cage: Toward Nanomolar Active Photosensitizers. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 9443-9456.	2.9	31
34	New iron chelators in anthracycline-induced cardiotoxicity. <i>Cardiovascular Toxicology</i> , 2007, 7, 145-150.	1.1	30
35	Binding of an amphiphilic phthalocyanine to pre-formed liposomes confers light-triggered cargo release. <i>Journal of Materials Chemistry B</i> , 2018, 6, 7298-7305.	2.9	30
36	Myocardial regulatory proteins and heart failure. <i>European Journal of Heart Failure</i> , 2006, 8, 333-342.	2.9	29

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37	Early and delayed cardioprotective intervention with dexrazoxane each show different potential for prevention of chronic anthracycline cardiotoxicity in rabbits. <i>Toxicology</i> , 2013, 311, 191-204.	2.0	28
38	Comparison of various iron chelators and prochelators as protective agents against cardiomyocyte oxidative injury. <i>Free Radical Biology and Medicine</i> , 2014, 74, 210-221.	1.3	28
39	The Novel Iron Chelator, 2-Pyridylcarboxaldehyde 2-Thiophenecarboxyl Hydrazone, Reduces Catecholamine-Mediated Myocardial Toxicity. <i>Chemical Research in Toxicology</i> , 2009, 22, 208-217.	1.7	27
40	Investigation of novel dexrazoxane analogue JR-311 shows significant cardioprotective effects through topoisomerase IIbeta but not its iron chelating metabolite. <i>Toxicology</i> , 2017, 392, 1-10.	2.0	25
41	In vivo and in vitro assessment of the role of glutathione antioxidant system in anthracycline-induced cardiotoxicity. <i>Archives of Toxicology</i> , 2011, 85, 525-535.	1.9	24
42	Clinically Translatable Prevention of Anthracycline Cardiotoxicity by Dexrazoxane Is Mediated by Topoisomerase II Beta and Not Metal Chelation. <i>Circulation: Heart Failure</i> , 2021, 14, e008209.	1.6	24
43	Quantitative Analysis of the Anti-Proliferative Activity of Combinations of Selected Iron-Chelating Agents and Clinically Used Anti-Neoplastic Drugs. <i>PLoS ONE</i> , 2014, 9, e88754.	1.1	23
44	Myocardial content of selected elements in experimental anthracycline-induced cardiomyopathy in rabbits. <i>BioMetals</i> , 2005, 18, 163-169.	1.8	20
45	Synthesis and analysis of novel analogues of dexrazoxane and its open-ring hydrolysis product for protection against anthracycline cardiotoxicity in vitro and in vivo. <i>Toxicology Research</i> , 2015, 4, 1098-1114.	0.9	20
46	Cardioprotective effects of inorganic nitrate/nitrite in chronic anthracycline cardiotoxicity: Comparison with dexrazoxane. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 91, 92-103.	0.9	20
47	Anionic hexadeca-carboxylate tetrapyrizinoporphyrazine: synthesis and in vitro photodynamic studies of a water-soluble, non-aggregating photosensitizer. <i>RSC Advances</i> , 2016, 6, 10064-10077.	1.7	17
48	A Study of Potential Toxic Effects After Repeated 10-Week Administration of a New Iron Chelator "Salicylaldehyde Isonicotinoyl Hydrazone (SIH) to Rabbits. <i>Acta Medica (Hradec Kralove)</i> , 2003, 46, 163-170.	0.2	17
49	DNA topoisomerase II $\beta$ : A player in regulation of gene expression and cell differentiation. <i>International Journal of Biochemistry and Cell Biology</i> , 2012, 44, 834-837.	1.2	16
50	Cardioprotective Potential of Iron Chelators and Prochelators. <i>Current Medicinal Chemistry</i> , 2019, 26, 288-301.	1.2	16
51	Direct administration of rutin does not protect against catecholamine cardiotoxicity. <i>Toxicology</i> , 2009, 255, 25-32.	2.0	15
52	Structure-Activity Relationships of Novel Salicylaldehyde Isonicotinoyl Hydrazone (SIH) Analogs: Iron Chelation, Anti-Oxidant and Cytotoxic Properties. <i>PLoS ONE</i> , 2014, 9, e112059.	1.1	15
53	Heteroatom-substituted tetra(3,4-pyrido)porphyrazines: a stride toward near-infrared-absorbing macrocycles. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 5608-5612.	1.5	15
54	Pharmacokinetics of the Cardioprotective Drug Dexrazoxane and Its Active Metabolite ADR-925 with Focus on Cardiomyocytes and the Heart. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2018, 364, 433-446.	1.3	15

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55	Cardioprotective effects of iron chelator HAPI and ROS-activated boronate prochelator BHAPI against catecholamine-induced oxidative cellular injury. <i>Toxicology</i> , 2016, 371, 17-28.	2.0	14
56	Investigation of Structure-Activity Relationships of Dexrazoxane Analogs Reveals Topoisomerase II $\alpha$ Interaction as a Prerequisite for Effective Protection against Anthracycline Cardiotoxicity. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2020, 373, 402-415.	1.3	14
57	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 $\alpha$ Interactions. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 3997-4019.	2.9	14
58	Cardiac troponin T as an indicator of reduced left ventricular contractility in experimental anthracycline-induced cardiomyopathy. <i>Cancer Chemotherapy and Pharmacology</i> , 2003, 52, 431-434.	1.1	13
59	Proteomic investigation of embryonic rat heart-derived H9c2 cell line sheds new light on the molecular phenotype of the popular cell model. <i>Experimental Cell Research</i> , 2015, 339, 174-186.	1.2	13
60	LC-UV/MS methods for the analysis of prochelator Boronyl salicylaldehyde isonicotinoyl hydrazone (BSIH) and its active chelator salicylaldehyde isonicotinoyl hydrazone (SIH). <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 105, 55-63.	1.4	13
61	A study of potential toxic effects after repeated 10-week administration of a new iron chelator-salicylaldehyde isonicotinoyl hydrazone (SIH) to rabbits. <i>Acta Medica (Hradec Kralove)</i> , 2003, 46, 163-70.	0.2	13
62	Safety and tolerability of repeated administration of pyridoxal 2-chlorobenzoyl hydrazone in rabbits. <i>Human and Experimental Toxicology</i> , 2005, 24, 581-589.	1.1	12
63	Characterization of cytoprotective and toxic properties of iron chelator SIH, prochelator BSIH and their degradation products. <i>Toxicology</i> , 2016, 350-352, 15-24.	2.0	10
64	<i>In vitro</i> and <i>in vivo</i> investigation of cardiotoxicity associated with anticancer proteasome inhibitors and their combination with anthracycline. <i>Clinical Science</i> , 2019, 133, 1827-1844.	1.8	10
65	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. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2013, 76, 243-251.	1.4	9
66	Pyridoxal Isonicotinoyl Hydrazone (PIH) and its Analogs as Protectants Against Anthracycline-Induced Cardiotoxicity. <i>Hemoglobin</i> , 2008, 32, 207-215.	0.4	8
67	Prodrug of ICRF-193 provides promising protective effects against chronic anthracycline cardiotoxicity in a rabbit model <i>in vivo</i> . <i>Clinical Science</i> , 2021, 135, 1897-1914.	1.8	8
68	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. <i>Biomedical Chromatography</i> , 2014, 28, 621-629.	0.8	7
69	2,6-Dihydroxybenzaldehyde Analogues of the Iron Chelator Salicylaldehyde Isonicotinoyl Hydrazone: Increased Hydrolytic Stability and Cytoprotective Activity against Oxidative Stress. <i>Chemical Research in Toxicology</i> , 2018, 31, 1151-1163.	1.7	7
70	In Vitro Characterization of the Pharmacological Properties of the Anti-Cancer Chelator, Bp4eT, and Its Phase I Metabolites. <i>PLoS ONE</i> , 2015, 10, e0139929.	1.1	7
71	The Fate of Iron in The Organism and Its Regulatory Pathways. <i>Acta Medica (Hradec Kralove)</i> , 2005, 48, 127-135.	0.2	7
72	Intravenous rutin in rat exacerbates isoprenaline-induced cardiotoxicity likely due to intracellular oxidative stress. <i>Redox Report</i> , 2017, 22, 78-90.	1.4	6

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73	Development of water-soluble prodrugs of the bisdioxopiperazine topoisomerase II <sup>β</sup> inhibitor ICRF-193 as potential cardioprotective agents against anthracycline cardiotoxicity. <i>Scientific Reports</i> , 2021, 11, 4456.	1.6	6
74	Pharmacy Practice and Education in the Czech Republic. <i>Pharmacy (Basel, Switzerland)</i> , 2017, 5, 54.	0.6	5
75	Structure-Activity Relationships of Nitro-Substituted Aroylhydrazone Iron Chelators with Antioxidant and Antiproliferative Activities. <i>Chemical Research in Toxicology</i> , 2018, 31, 435-446.	1.7	5
76	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. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 2383-2394.	1.9	5
77	Protective Effects of D-Penicillamine on Catecholamine-Induced Myocardial Injury. <i>Oxidative Medicine and Cellular Longevity</i> , 2016, 2016, 1-10.	1.9	4
78	The fate of iron in the organism and its regulatory pathways. <i>Acta Medica (Hradec Kralove)</i> , 2005, 48, 127-35.	0.2	4
79	Large-Scale Synthesis of Piperazine-2,6-dione and Its Use in the Synthesis of Dexrazoxane Analogues. <i>Synthesis</i> , 2016, 48, 4580-4588.	1.2	3
80	UHPLC-MS/MS method for analysis of sobuzoxane, its active form ICRF-154 and metabolite EDTA-diamide and its application to bioactivation study. <i>Scientific Reports</i> , 2019, 9, 4524.	1.6	2
81	Troponins in Experimental Studies. <i>Acta Medica (Hradec Kralove)</i> , 2002, 45, 29-32.	0.2	2
82	Effect of Sodium 2,3-Dimercaptopropane-1-Sulphonate (DMPS) on Chronic Daunorubicin Toxicity in Rabbits: Comparison with Dexrazoxane. <i>Acta Medica (Hradec Kralove)</i> , 2002, 45, 99-105.	0.2	2
83	Effect of sodium 2,3-dimercaptopropane-1-sulphonate (DMPS) on chronic daunorubicin toxicity in rabbits: comparison with dexrazoxane. <i>Acta Medica (Hradec Kralove)</i> , 2002, 45, 99-105.	0.2	2
84	Examination of diverse iron-chelating agents for the protection of differentiated PC12 cells against oxidative injury induced by 6-hydroxydopamine and dopamine. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
85	Cardiac remodeling and the role of matrix metalloproteinases in chronic anthracycline cardiotoxicity. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 40, 1001.	0.9	1
86	Are cardioprotective effects of NO-releasing drug molsidomine translatable to chronic anthracycline cardiotoxicity settings?. <i>Toxicology</i> , 2016, 372, 52-63.	2.0	1
87	A Pilot Study of Matrix Metalloproteinases on the Model of Daunorubicin-induced Cardiomyopathy in Rabbits. <i>Acta Medica (Hradec Kralove)</i> , 2007, 50, 109-111.	0.2	1
88	Primary prevention of chronic anthracycline cardiotoxicity with ACE inhibitor is temporarily effective in rabbits, but benefits wane in post-treatment follow-up. <i>Clinical Science</i> , 2022, 136, 139-161.	1.8	1
89	Troponins for predicting cardiotoxic or cardioprotective effects of new drugs. <i>Journal of Molecular and Cellular Cardiology</i> , 2002, 34, A3.	0.9	0
90	Comparison of protection by salicylaldehyde isonicotinoyl hydrazone (SIH) against hydrogen peroxide- and anthracycline-induced toxicity to cardiac cells. <i>Toxicology Letters</i> , 2008, 180, S117.	0.4	0

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91	STUDY OF MOLECULAR MECHANISMS INVOLVED IN CARDIOPROTECTIVE ACTION OF DEXRAZOXANE AGAINST ANTHRACYCLINE CARDIOTOXICITY IN RABBITS. Heart, 2014, 100, A7.3-A8.	1.2	0
92	ANTHRACYCLINE CARDIOTOXICITY: THE PHARMACOKINETICS AND PHARMACODYNAMICS OF DEXRAZOXANE AND ITS OPEN RING METABOLITE. Heart, 2014, 100, A7.1-A7.	1.2	0
93	CAN INORGANIC NITRATE/NITRITE EFFECTIVELY OVERCOME CHRONIC ANTHRACYCLINE CARDIOTOXICITY IN RABBITS?. Heart, 2014, 100, A8.1-A8.	1.2	0
94	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
95	Influence of cationic, anionic or non-charged substituents on photodynamic activity of water-soluble zinc (aza)phthalocyanines. , 2019, , .		0