Artak G Tovmasyan

List of Publications by Year
in descending order

75 papers	2,855 citations	172457 29 h-index	182427 51 g-index
100 all docs	100 docs citations	100 times ranked	2730 citing authors

#	Article	IF	Citations
1	Manganese superoxide dismutase, MnSOD and its mimics. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 794-814.	3.8	312
2	SOD Therapeutics: Latest Insights into Their Structure-Activity Relationships and Impact on the Cellular Redox-Based Signaling Pathways. Antioxidants and Redox Signaling, 2014, 20, 2372-2415.	5.4	194
3	An educational overview of the chemistry, biochemistry and therapeutic aspects of Mn porphyrins â€“ From superoxide dismutation to H2O2-driven pathways. Redox Biology, 2015, 5, 43-65.	9.0	136
4	Diverse functions of cationic Mn(III) N-substituted pyridylporphyrins, recognized as SOD mimics. Free Radical Biology and Medicine, 2011, 51, 1035-1053.	2.9	122
5	Mn Porphyrin-Based Redox-Active Drugs: Differential Effects as Cancer Therapeutics and Protectors of Normal Tissue Against Oxidative Injury. Antioxidants and Redox Signaling, 2018, 29, 1691-1724.	5.4	102
6	Design of Mn porphyrins for treating oxidative stress injuries and their redox-based regulation of cellular transcriptional activities. Amino Acids, 2012, 42, 95-113.	2.7	97
7	Design, Mechanism of Action, Bioavailability and Therapeutic Effects of Mn Porphyrin-Based Redox Modulators. Medical Principles and Practice, 2013, 22, 103-130.	2.4	81
8	Effect of Molecular Characteristics on Cellular Uptake, Subcellular Localization, and Phototoxicity of Zn(II) N-Alkylpyridylporphyrins. Journal of Biological Chemistry, 2013, 288, 36579-36588.	3.4	77
9	A comprehensive evaluation of catalase-like activity of different classes of redox-active therapeutics. Free Radical Biology and Medicine, 2015, 86, 308-321.	2.9	71
10	A new SOD mimic, Mn(III) ortho N-butoxyethylpyridylporphyrin, combines superb potency and lipophilicity with low toxicity. Free Radical Biology and Medicine, 2012, 52, 1828-1834.	2.9	70
11	Mn porphyrin in combination with ascorbate acts as a pro-oxidant and mediates caspase-independent cancer cell death. Free Radical Biology and Medicine, 2014, 68, 302-314.	2.9	64
12	Novel Manganese-Porphyrin Superoxide Dismutase-Mimetic Widens the Therapeutic Margin in a Preclinical Head and Neck Cancer Model. International Journal of Radiation Oncology Biology Physics, 2015, 93, 892-900.	0.8	61
13	Differential Coordination Demands in Fe versus Mn Water-Soluble Cationic Metalloporphyrins Translate into Remarkably Different Aqueous Redox Chemistry and Biology. Inorganic Chemistry, 2013, 52, 5677-5691.	4.0	60
14	Radioprotection of the Brain White Matter by Mn(III) <i>N</i>-Butoxyethylpyridylporphyrinâ€“Based Superoxide Dismutase Mimic MnTnBuOE-2-PyP5+. Molecular Cancer Therapeutics, 2015, 14, 70-79.	4.1	60
15	Anticancer therapeutic potential of Mn porphyrin/ascorbate system. Free Radical Biology and Medicine, 2015, 89, 1231-1247.	2.9	56
16	Comprehensive pharmacokinetic studies and oral bioavailability of two Mn porphyrin-based SOD mimics, MnTE-2-PyP5+ and MnTnHex-2-PyP5+. Free Radical Biology and Medicine, 2013, 58, 73-80.	2.9	51
17	Cytotoxic effects of Mn(III)<i>N</i>-alkylpyridylporphyrins in the presence of cellular reductant, ascorbate. Free Radical Research, 2011, 45, 1289-1306.	3.3	50
18	Simple Biological Systems for Assessing the Activity of Superoxide Dismutase Mimics. Antioxidants and Redox Signaling, 2014, 20, 2416-2436.	5.4	48

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19	Important cellular targets for antimicrobial photodynamic therapy. Applied Microbiology and Biotechnology, 2016, 100, 7679-7688.	3.6	44
20	Rational Design of Superoxide Dismutase (SOD) Mimics: The Evaluation of the Therapeutic Potential of New Cationic Mn Porphyrins with Linear and Cyclic Substituents. Inorganic Chemistry, 2014, 53, 11467-11483.	4.0	43
21	Mitochondrial ROS cause motor deficits induced by synaptic inactivity: Implications for synapse pruning. Redox Biology, 2018, 16, 344-351.	9.0	43
22	Sublethal Photodynamic Treatment Does Not Lead to Development of Resistance. Frontiers in Microbiology, 2018, 9, 1699.	3.5	42
23	Novel role of 4-hydroxy-2-nonenal in AIFm2-mediated mitochondrial stress signaling. Free Radical Biology and Medicine, 2016, 91, 68-80.	2.9	41
24	Metalloporphyrins as Therapeutic Catalytic Oxidoreductants in Central Nervous System Disorders. Antioxidants and Redox Signaling, 2014, 20, 2437-2464.	5.4	39
25	Optimizing Zn porphyrin-based photosensitizers for efficient antibacterial photodynamic therapy. Photodiagnosis and Photodynamic Therapy, 2017, 17, 154-159.	2.6	38
26	Methoxy-derivatization of alkyl chains increases the in vivo efficacy of cationic Mn porphyrins. Synthesis, characterization, SOD-like activity, and SOD-deficient E. coli study of meta Mn(iii) N-methoxyalkylpyridylporphyrins. Dalton Transactions, 2011, 40, 4111.	3.3	33
27	Targeting Mitochondria by Zn(II)N-Alkylpyridylporphyrins: The Impact of Compound Sub-Mitochondrial Partition on Cell Respiration and Overall Photodynamic Efficacy. PLoS ONE, 2014, 9, e108238.	2.5	33
28	Amphiphilic cationic Zn-porphyrins with high photodynamic antimicrobial activity. Future Microbiology, 2015, 10, 709-724.	2.0	33
29	CNS bioavailability and radiation protection of normal hippocampal neurogenesis by a lipophilic Mn porphyrin-based superoxide dismutase mimic, MnTnBuOE-2-PyP5+. Redox Biology, 2017, 12, 864-871.	9.0	32
30	Cationic amphiphilic Zn-porphyrin with high antifungal photodynamic potency. Photochemical and Photobiological Sciences, 2017, 16, 1709-1716.	2.9	31
31	Radiation-Mediated Tumor Growth Inhibition Is Significantly Enhanced with Redox-Active Compounds That Cycle with Ascorbate. Antioxidants and Redox Signaling, 2018, 29, 1196-1214.	5.4	30
32	Post-Irradiation Treatment with a Superoxide Dismutase Mimic, MnTnHex-2-PyP5+, Mitigates Radiation Injury in the Lungs of Non-Human Primates after Whole-Thorax Exposure to Ionizing Radiation. Antioxidants, 2018, 7, 40.	5.1	30
33	H2O2-Driven Anticancer Activity of Mn Porphyrins and the Underlying Molecular Pathways. Oxidative Medicine and Cellular Longevity, 2021, 2021, 1-23.	4.0	30
34	Mn Porphyrin Regulation of Aerobic Glycolysis: Implications on the Activation of Diabetogenic Immune Cells. Antioxidants and Redox Signaling, 2013, 19, 1902-1915.	5.4	29
35	Superoxide dismutase mimic, MnTE-2-PyP5+ ameliorates acute and chronic proctitis following focal proton irradiation of the rat rectum. Redox Biology, 2013, 1, 599-607.	9.0	28
36	Redox-Active Mn Porphyrin-based Potent SOD Mimic, MnTnBuOE-2-PyP5+, Enhances Carbenoxolone-Mediated TRAIL-Induced Apoptosis in Glioblastoma Multiforme. Stem Cell Reviews and Reports, 2016, 12, 140-155.	5.6	28

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37	Mn porphyrin-based SOD mimic, MnTnHex-2-PyP⁵⁺, and non-SOD mimic, MnTBAP^{3âˆ’}, suppressed rat spinal cord ischemia/reperfusion injury<i>via</i>NF-ÎºB pathways. Free Radical Research, 2014, 48, 1426-1442.	3.3	27
38	Robust rat pulmonary radioprotection by a lipophilic Mn N-alkylpyridylporphyrin, MnTnHex-2-PyP5+. Redox Biology, 2014, 2, 400-410.	9.0	27
39	Synthesis and<i>in vitro</i>anticancer activity of water-soluble cationic pyridylporphyrins and their metallocomplexes. Journal of Porphyrins and Phthalocyanines, 2008, 12, 1100-1110.	0.8	26
40	Manganese-Based Superoxide Dismutase Mimics Modify Both Acute and Long-Term Outcome Severity in a<i>Drosophila melanogaster</i>Model of Classic Galactosemia. Antioxidants and Redox Signaling, 2014, 20, 2361-2371.	5.4	25
41	Novel amphiphilic cationic porphyrin and its Ag(II) complex as potential anticancer agents. Journal of Inorganic Biochemistry, 2014, 140, 94-103.	3.5	23
42	Late administration of Mn porphyrin-based SOD mimic enhances diabetic complications. Redox Biology, 2013, 1, 457-466.	9.0	20
43	Accumulation of Porphyrin-based SOD Mimics in Mitochondria is Proportional to Their Lipophilicity: S. cerevisiae Study of ortho Mn(III) N-alkylpyridylporphyrins. Free Radical Biology and Medicine, 2010, 49, S199.	2.9	18
44	Challenges encountered during development of Mn porphyrin-based, potent redox-active drug and superoxide dismutase mimic, MnTnBuOE-2-PyP5+, and its alkoxyalkyl analogues. Journal of Inorganic Biochemistry, 2017, 169, 50-60.	3.5	18
45	Novel fluorinated Mn porphyrin as a powerful SOD mimic and catalyst for ascorbate-coupled anticancer therapy. Free Radical Biology and Medicine, 2017, 112, 36-37.	2.9	18
46	Neurobehavioral radiation mitigation to standard brain cancer therapy regimens by Mn(III) <i>n</i>â€butoxyethylpyridylporphyrinâ€based redox modifier. Environmental and Molecular Mutagenesis, 2016, 57, 372-381.	2.2	17
47	Preclinical Testing of a Novel Niclosamide Stearate Prodrug Therapeutic (NSPT) Shows Efficacy Against Osteosarcoma. Molecular Cancer Therapeutics, 2020, 19, 1448-1461.	4.1	17
48	Mn Porphyrins as Novel Molecular Magnetic Resonance Imaging Contrast Agents. Journal of Endourology, 2012, 26, 1420-1424.	2.1	16
49	Porphyrinâ€Based SOD Mimic MnTnBuOEâ€2â€PyP 5+ Inhibits Mechanisms of Aortic Valve Remodeling in Human and Murine Models of Aortic Valve Sclerosis. Journal of the American Heart Association, 2018, 7, e007861.	3.7	16
50	Differential localization and potency of manganese porphyrin superoxide dismutase-mimicking compounds in Saccharomyces cerevisiae. Redox Biology, 2014, 3, 1-6.	9.0	14
51	Mn Porphyrin-Based Redox-Active Therapeutics. Oxidative Stress in Applied Basic Research and Clinical Practice, 2016, , 165-212.	0.4	14
52	Manganese porphyrin redox state in endothelial cells: Resonance Raman studies and implications for antioxidant protection towards peroxynitrite. Free Radical Biology and Medicine, 2018, 126, 379-392.	2.9	10
53	Antibacterial Activity of Synthetic Cationic Iron Porphyrins. Antioxidants, 2020, 9, 972.	5.1	10
54	Comprehensive Study of GPx Activity of Different Classes of Redox-Active Therapeutics - Implications for Their Therapeutic Actions. Free Radical Biology and Medicine, 2015, 87, S86-S87.	2.9	9

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55	Lipophilic Mn Porphyrins in the Treatment of Brain Tumors. Free Radical Biology and Medicine, 2011, 51, S119-S120.	2.9	8
56	Fe Porphyrin-Based SOD Mimic and Redox-Active Compound, (OH)FeTnHex-2-PyP4+, in a Rodent Ischemic Stroke (MCAO) Model: Efficacy and Pharmacokinetics as Compared to Its Mn Analogue, (H2O)MnTnHex-2-PyP5+. Antioxidants, 2020, 9, 467.	5.1	8
57	Post-illumination cellular effects of photodynamic treatment. PLoS ONE, 2017, 12, e0188535.	2.5	8
58	In Vitro Testing of Cyto- and Genotoxicity of New Porphyrin Water-Soluble Metal Derivatives. International Journal of Toxicology, 2007, 26, 497-502.	1.2	7
59	Mechanistic Considerations of the Therapeutic Effects of Mn Porphyrins, Commonly Regarded as SOD Mimics, in Anticancer Therapy: Lessons from Brain and Lymphoma Studies. Free Radical Biology and Medicine, 2013, 65, S120-S121.	2.9	7
60	The complex mechanistic aspects of redox-active compounds, commonly regarded as SOD mimics. Bioinorganic Reaction Mechanisms, 2013, 9, .	0.4	7
61	Roles of Phytoestrogen in the Pathophysiology of Intracranial Aneurysm. Stroke, 2021, 52, 2661-2670.	2.0	7
62	Comprehensive Pharmacokinetic Studies and Biodistribution of Two Cationic Mn Porphyrin-Based Catalysts, MnTE-2-PyP5+ and MnTnHex-2-PyP5+: Plasma and Organ Oral Availability, Mitochondrial, Cytosolic, Whole Brain, Hippocampus and Cortex Distribution. Free Radical Biology and Medicine, 2012, 53, S118.	2.9	6
63	A Redoxable Mn Porphyrin, MnTnBuOE-2-PyP5+, Synergizes with Carboplatin in Treatment of Chemoresistant Ovarian Cell Line. Oxidative Medicine and Cellular Longevity, 2022, 2022, 1-16.	4.0	5
64	Mn Porphyrin-Based SOD Mimic and Vitamin C Enhance Radiation-Induced Tumor Growth Inhibition. Free Radical Biology and Medicine, 2015, 87, S97.	2.9	4
65	Opinion on Schmidt et al.. Antioxidants and Redox Signaling, 2016, 24, 518-524.	5.4	4
66	Simultaneous determination of LY3214996, abemaciclib, and M2 and M20 metabolites in human plasma, cerebrospinal fluid, and brain tumor by LC-MS/MS. Journal of Pharmaceutical Analysis, 2022, 12, 601-609.	5.3	4
67	Photodynamic inactivation of Gram (-) and Gram (+) microorganisms by cationic porphyrins and metalloporphyrins. Proceedings of SPIE, 2009, , .	0.8	3
68	Manganese Porphyrin, MnTE-2-PyP5+, Enhances Chemotherapeutic Response in Hematological Malignancies. Free Radical Biology and Medicine, 2016, 100, S123.	2.9	3
69	Mn-Porphyrins as Novel Molecular MRI Contrast Agents. Journal of Endourology, 2011, , 111222131612007.	2.1	3
70	Fe porphyrins Revisited: Synthesis, Characterization and the Effects of Ortho and Meta Fe(III) N-Alkylpyridylporphyrins Upon the Growth of E. Coli in the Presence and Absence of Ascorbate. Free Radical Biology and Medicine, 2011, 51, S99.	2.9	2
71	Potential for a novel manganese porphyrin compound as adjuvant canine lymphoma therapy. Cancer Chemotherapy and Pharmacology, 2017, 80, 421-431.	2.3	2
72	Protection of rat prostate and erectile function from radiation-induced damage by novel Mn(III) N - substituted pyridylporphyrin and ascorbate. Free Radical Biology and Medicine, 2017, 112, 35-36.	2.9	2

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73	Abstract 5552: Manganese porphyrins in combination with ascorbate act as pro-oxidants and mediate caspase-independent cancer cell death.. Cancer Research, 2013, 73, 5552-5552.	0.9	2
74	Ascorbate-dependent and ascorbate-independent Mn porphyrin cytotoxicity: anticancer activity of Mn porphyrin-based SOD mimics through ascorbate-dependent and -independent routes. Redox Report, 2021, 26, 85-93.	4.5	1
75	Protection Of Neurocognitive Function During Cranial Irradiation Of Brain Tumors. Free Radical Biology and Medicine, 2017, 112, 13.	2.9	0