Christopher Horst Lillig

List of Publications by Year
in descending order

82 papers	7,222 citations	66234 42 h-index	74018 75 g-index

87 all docs	87 docs citations	87 times ranked	8011 citing authors

#	Article	IF	Citations
1	Thioredoxin and Related Moleculesâ€“From Biology to Health and Disease. Antioxidants and Redox Signaling, 2007, 9, 25-47.	2.5	629
2	Thioredoxins, Glutaredoxins, and Peroxiredoxinsâ€”Molecular Mechanisms and Health Significance: from Cofactors to Antioxidants to Redox Signaling. Antioxidants and Redox Signaling, 2013, 19, 1539-1605.	2.5	557
3	Glutaredoxin systems. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1304-1317.	1.1	523
4	Thiol redox control via thioredoxin and glutaredoxin systems. Biochemical Society Transactions, 2005, 33, 1375.	1.6	341
5	Thiol-based mechanisms of the thioredoxin and glutaredoxin systems: implications for diseases in the cardiovascular system. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H1227-H1236.	1.5	307
6	Linkage of inflammation and oxidative stress via release of glutathionylated peroxiredoxin-2, which acts as a danger signal. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12157-12162.	3.3	293
7	Thiol redox control via thioredoxin and glutaredoxin systems. Biochemical Society Transactions, 2005, 33, 1375-1377.	1.6	278
8	Cytosolic Monothiol Glutaredoxins Function in Intracellular Iron Sensing and Trafficking via Their Bound Iron-Sulfur Cluster. Cell Metabolism, 2010, 12, 373-385.	7.2	263
9	Human Mitochondrial Glutaredoxin Reduces S-Glutathionylated Proteins with High Affinity Accepting Electrons from Either Glutathione or Thioredoxin Reductase. Journal of Biological Chemistry, 2004, 279, 7537-7543.	1.6	261
10	Characterization of human glutaredoxin 2 as iron-sulfur protein: A possible role as redox sensor. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8168-8173.	3.3	260
11	Thioredoxins and glutaredoxins as facilitators of protein folding. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 641-650.	1.9	223
12	Overexpression of glutaredoxin 2 attenuates apoptosis by preventing cytochrome c release. Biochemical and Biophysical Research Communications, 2005, 327, 774-779.	1.0	147
13	Short interfering RNA-mediated silencing of glutaredoxin 2 increases the sensitivity of HeLa cells toward doxorubicin and phenylarsine oxide. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13227-13232.	3.3	145
14	New Thioredoxins and Glutaredoxins as Electron Donors of 3â€²-Phosphoadenylylsulfate Reductase. Journal of Biological Chemistry, 1999, 274, 7695-7698.	1.6	129
15	A Novel Monothiol Glutaredoxin (Grx4) from Escherichia coli Can Serve as a Substrate for Thioredoxin Reductase. Journal of Biological Chemistry, 2005, 280, 24544-24552.	1.6	129
16	Glutaredoxins in Thiol/Disulfide Exchange. Antioxidants and Redox Signaling, 2013, 18, 1654-1665.	2.5	117
17	Redox atlas of the mouse. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 2-92.	1.1	112
18	How Does Ironâ€“Sulfur Cluster Coordination Regulate the Activity of Human Glutaredoxin 2?. Antioxidants and Redox Signaling, 2007, 9, 151-157.	2.5	101

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19	Crucial function of vertebrate glutaredoxin 3 (PICOT) in iron homeostasis and hemoglobin maturation. Molecular Biology of the Cell, 2013, 24, 1895-1903.	0.9	101
20	Cold Atmospheric Plasma Treatment Induces Anti-Proliferative Effects in Prostate Cancer Cells by Redox and Apoptotic Signaling Pathways. PLoS ONE, 2015, 10, e0130350.	1.1	101
21	Molecular architecture of Streptococcus pneumoniae surface thioredoxinâ€fold lipoproteins crucial for extracellular oxidative stress resistance and maintenance of virulence. EMBO Molecular Medicine, 2013, 5, 1852-1870.	3.3	99
22	Cysteine Oxidation Targets Peroxiredoxins 1 and 2 for Exosomal Release through a Novel Mechanism of Redox-Dependent Secretion. Molecular Medicine, 2015, 21, 98-108.	1.9	99
23	Redox-mediated kick-start of mitochondrial energy metabolism drives resource-efficient seed germination. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 741-751.	3.3	96
24	Both Thioredoxin 2 and Glutaredoxin 2 Contribute to the Reduction of the Mitochondrial 2-Cys Peroxiredoxin Prx3. Journal of Biological Chemistry, 2010, 285, 40699-40705.	1.6	95
25	Glutathione, Glutaredoxins, and Iron. Antioxidants and Redox Signaling, 2017, 27, 1235-1251.	2.5	95
26	Oxidation and S-Nitrosylation of Cysteines in Human Cytosolic and Mitochondrial Glutaredoxins. Journal of Biological Chemistry, 2007, 282, 14428-14436.	1.6	94
27	Characterization of the human monothiol glutaredoxin 3 (PICOT) as ironâ€“sulfur protein. Biochemical and Biophysical Research Communications, 2010, 394, 372-376.	1.0	89
28	Expression Pattern of Human Glutaredoxin 2 Isoforms: Identification and Characterization of Two Testis/Cancer Cell-Specific Isoforms. Antioxidants and Redox Signaling, 2008, 10, 547-558.	2.5	85
29	Reversible Silencing of CFTR Chloride Channels by Glutathionylation. Journal of General Physiology, 2005, 125, 127-141.	0.9	79
30	Identification, Expression Pattern, and Characterization of Mouse Glutaredoxin 2 Isoforms. Antioxidants and Redox Signaling, 2009, 11, 1-14.	2.5	78
31	Thioredoxin and glutaredoxin system proteinsâ€”immunolocalization in the rat central nervous system. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 93-110.	1.1	72
32	Vertebrate-specific glutaredoxin is essential for brain development. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20532-20537.	3.3	71
33	Redox regulation by glutathione needs enzymes. Frontiers in Pharmacology, 2014, 5, 168.	1.6	71
34	Redox Proteomics of the Inflammatory Secretome Identifies a Common Set of Redoxins and Other Glutathionylated Proteins Released in Inflammation, Influenza Virus Infection and Oxidative Stress. PLoS ONE, 2015, 10, e0127086.	1.1	68
35	Characterization and Reconstitution of a 4Fe-4S Adenylyl Sulfate/Phosphoadenylyl Sulfate Reductase from Bacillus subtilis. Journal of Biological Chemistry, 2004, 279, 7850-7855.	1.6	63
36	Enzymatic control of cysteinyl thiol switches in proteins. Biological Chemistry, 2015, 396, 401-413.	1.2	59

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37	Saccharomyces cerevisiae Grx6 and Grx7 Are Monothiol Glutaredoxins Associated with the Early Secretory Pathway. Eukaryotic Cell, 2008, 7, 1415-1426.	3.4	56
38	The Multidomain Thioredoxin-Monothiol Glutaredoxins Represent a Distinct Functional Group. Antioxidants and Redox Signaling, 2011, 15, 19-30.	2.5	54
39	The specificity of thioredoxins and glutaredoxins is determined by electrostatic and geometric complementarity. Chemical Science, 2015, 6, 7049-7058.	3.7	52
40	Molecular and Catalytic Properties of Arabidopsis thaliana Adenylyl Sulfate (APS)-Kinase. Archives of Biochemistry and Biophysics, 2001, 392, 303-310.	1.4	51
41	Redox Regulation of 3â€²-Phosphoadenylylsulfate Reductase from Escherichia coli by Glutathione and Glutaredoxins. Journal of Biological Chemistry, 2003, 278, 22325-22330.	1.6	47
42	Molecular basis for the distinct functions of redox-active and FeS-transfering glutaredoxins. Nature Communications, 2020, 11, 3445.	5.8	47
43	Redoxâ€regulation of activator protein 1 family members in blood cancer cell lines exposed to cold physical plasmaâ€treated medium. Plasma Processes and Polymers, 2016, 13, 1179-1188.	1.6	45
44	Segment-specific overexpression of redoxins after renal ischemia and reperfusion: protective roles of glutaredoxin 2, peroxiredoxin 3, and peroxiredoxin 6. Free Radical Biology and Medicine, 2011, 51, 552-561.	1.3	36
45	Structural and kinetic properties of adenylyl sulfate reductase from Catharanthus roseus cell cultures. BBA - Proteins and Proteomics, 1999, 1430, 25-38.	2.1	35
46	Oxidative Stress and Microcirculatory Flow Abnormalities in the Ventricles during Atrial Fibrillation. Frontiers in Physiology, 2012, 3, 236.	1.3	35
47	Characterization of the Redox Properties of Poplar Glutaredoxin. Antioxidants and Redox Signaling, 2003, 5, 15-22.	2.5	33
48	Ironâ€sulfur glutaredoxin 2 protects oligodendrocytes against damage induced by nitric oxide release from activated microglia. Glia, 2017, 65, 1521-1534.	2.5	33
49	Identification of a Dithiol-disulfide Switch in Collapsin Response Mediator Protein 2 (CRMP2) That Is Toggled in a Model of Neuronal Differentiation. Journal of Biological Chemistry, 2013, 288, 35117-35125.	1.6	31
50	Redox regulation of cytoskeletal dynamics during differentiation and de-differentiation. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1575-1587.	1.1	30
51	Substrate specificity of thioredoxins and glutaredoxins â€“ towards a functional classification. Heliyon, 2019, 5, e02943.	1.4	28
52	Dual role of astrocytes in perinatal asphyxia injury and neuroprotection. Neuroscience Letters, 2014, 565, 42-46.	1.0	26
53	Pentathiepins: A Novel Class of Glutathione Peroxidase 1 Inhibitors that Induce Oxidative Stress, Loss of Mitochondrial Membrane Potential and Apoptosis in Human Cancer Cells. ChemMedChem, 2020, 15, 1515-1528.	1.6	24
54	Thioredoxin 1 and glutaredoxin 2 contribute to maintain the phenotype and integrity of neurons following perinatal asphyxia. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1274-1285.	1.1	22

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55	Identification of potential protein dithiol-disulfide substrates of mammalian Grx2. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 4999-5005.	1.1	21
56	Nucleoredoxin-Dependent Targets and Processes in Neuronal Cells. Oxidative Medicine and Cellular Longevity, 2018, 2018, 1-11.	1.9	19
57	The Reducing Activity of Glutaredoxin 3 toward Cytoplasmic Substrate Proteins Is Restricted by Methionine 43â€. Biochemistry, 2007, 46, 3366-3377.	1.2	16
58	Functional and Morphological Changes in Endocrine Pancreas following Cola Drink Consumption in Rats. PLoS ONE, 2015, 10, e0118700.	1.1	16
59	Cellular functions of glutathione. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 3137-3138.	1.1	15
60	Redoxins in peripheral neurons after sciatic nerve injury. Free Radical Biology and Medicine, 2015, 89, 581-592.	1.3	15
61	Effects of cytotoxic cis - and trans -diammine monochlorido platinum(II) complexes on selenium-dependent redox enzymes and DNA. Journal of Inorganic Biochemistry, 2018, 178, 94-105.	1.5	15
62	Paracrine regulation and improvement of Î²-cell function by thioredoxin. Redox Biology, 2020, 34, 101570.	3.9	14
63	Neuronal Damage Induced by Perinatal Asphyxia Is Attenuated by Postinjury Glutaredoxin-2 Administration. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-14.	1.9	11
64	Signal-regulated oxidation of proteins via MICAL. Biochemical Society Transactions, 2020, 48, 613-620.	1.6	11
65	The amino terminal subdomain of glycoprotein Gc of Schmallenberg virus: disulfide bonding and structural determinants of neutralization. Journal of General Virology, 2017, 98, 1259-1273.	1.3	9
66	Molecular dynamics simulations and in vitro analysis of the CRMP2 thiol switch. Molecular BioSystems, 2017, 13, 1744-1753.	2.9	8
67	Lights on Iron-Sulfur Clusters. Chemistry and Biology, 2009, 16, 1213-1214.	6.2	7
68	The cytosolic isoform of glutaredoxin 2 promotes cell migration and invasion. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129599.	1.1	7
69	Molecular Basis for the Interactions of Human Thioredoxins with Their Respective Reductases. Oxidative Medicine and Cellular Longevity, 2021, 2021, 1-17.	1.9	6
70	Preface to the special issue on redox control of cell function. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1169.	1.1	3
71	Thioredoxin 1 Plays a Protective Role in Retinas Exposed to Perinatal Hypoxiaâ€“Ischemia. Neuroscience, 2020, 425, 235-250.	1.1	3
72	Special issue on selenoprotein expression and function. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 1387-1388.	1.1	2

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73	Redox regulation of differentiation and de-differentiation. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1467-1468.	1.1	2
74	Thioredoxin 1 is upregulated in the bone and bone marrow following experimental myocardial infarction: evidence for a remote organ response. Histochemistry and Cell Biology, 2021, 155, 89-99.	0.8	2
75	PP.05.20. Journal of Hypertension, 2015, 33, e173-e174.	0.3	0
76	14 Thioredoxins and Glutaredoxins. Functions and Metal Ion Interactions. , 2015, , 413-440.		0
77	Expression of Redox Proteins in the Heart After Myocardial Infarction in Rats. Free Radical Biology and Medicine, 2017, 112, 112.	1.3	0
78	The Thioredoxin Family Proteins: Histopathological Time Course Study in the Asphyctic Male Rat Brain. Microscopy and Microanalysis, 2020, 26, 183-184.	0.2	0
79	Evaluation of Glutaredoxin 1 as a Novel Marker of Renal Damage after Ischemiaâ€Reperfusion Injury in Mice. FASEB Journal, 2020, 34, 1-1.	0.2	0
80	Functional plasticity in the thioredoxin family: FeS-thio- and glutaredoxins. , 2022, , 219-239.		0
81	Nucleoredoxin Plays a Key Role in the Maintenance of Retinal Pigmented Epithelium Differentiation. Antioxidants, 2022, 11, 1106.	2.2	0
82	Cytosolic glutaredoxin 1 is upregulated in AMD and controls retinal pigment epithelial cells proliferation via Î²-catenin. Biochemical and Biophysical Research Communications, 2022, 618, 24-29.	1.0	0