Author(s)	Year	Title	Proteins mentioned	Notes	Protein cluster ID.
You, Y., Chen, J., Zhu, F., et al.	2019	Glutaredoxin 1 up-regulates deglutathionylation of alpha4 integrin and thereby restricts neutrophil mobilization from bone marrow	alpha4 integrin		1
Wu, W., Geng, P., Zhu, J., et al.	2019	KLF2 regulates eNOS uncoupling via Nrf2/HO-1 in endothelial cells under hypoxia and reoxygenation	endothelial nitric oxide synthase		4
Weinberg, E. O., Ferran, B., Tsukahara, Y., et al.	2019	IL-33 induction and signaling are controlled by glutaredoxin-1 in mouse macrophages	TRAF6	energy met	2
Vigorito, C., Anishchenko, E., Mele, L., et al.	2019	Uremic Toxin Lanthionine Interferes with the Transsulfuration Pathway, Angiogenetic Signaling and Increases Intracellular Calcium	transsulfuration enzyme cystathionine-beta-synthase		4
VanHecke, G. C., Abeywardana, M. Y., Ahn, Y. H.	2019	Proteomic Identification of Protein Glutathionylation in Cardiomyocytes	CSRP3/MLP and complex I, II, and III		1; 4
Vall-Llaura, N., Mir, N., Garrido, L., et al.	2019	Redox control of yeast Sir2 activity is involved in acetic acid resistance and longevity	yeast Sir2		7
Valerio, V., Myasoedova, V. A., Moschetta, D., et al.	2019	Impact of Oxidative Stress and Protein S-Glutathionylation in Aortic Valve Sclerosis Patients with Overt Atherosclerosis	beta-actin		1
Telman, W., Dietz, K. J.	2019	Thiol redox regulation for efficient adjustment of sulfur metabolism in abiotic stress acclimation	adenosine 5`phosphosulfate reductase (APR), adenosine 5'-phosphosulfate kinase (APSK) and y-glutamylcysteine ligase (GCL)		2; 4
Srivastava, D., et al.	2019	Characterization of residue-specific glutathionylation of CSF proteins in multiple sclerosis - A MS-based approach	CSF proteins: Extracellular Superoxide dismutase (ECSOD) at Cys195, alpha1-antitrypsin (A1AT) at Cys232, Phospholipid transfer protein (PLTP) at Cys318, Alpha-2-HS-glycoprotein at Cys340, Ectonucleotide pyrophosphate (ENPP-2) at Cys773, Gelsolin at Cys304, Interleukin-18 (IL-18) at Cys38 and Ig heavy chain V III region POM at Cys22		
Seyrek, K., et al.	2019	Modulation of CD95-mediated signaling by post-translational modifications: towards understanding CD95 signaling networks	CD95		8
Saisawang, C., et al.	2019	Glutathione transferase Omega 1-1 (GSTO1-1) modulates Akt and MEK1/2 signaling in human neuroblastoma cell SH-SY5Y	Akt		6
Ranieri, M., et al.	2019	Green olive leaf extract (OLE) provides cytoprotection in renal cells exposed to low doses of cadmium	actin		1
Poluektov, Y. M., et al.	2019	Glutathione-related substances maintain cardiomyocyte contractile function in hypoxic conditions	Na,K-ATPase alpha-2 subunit		7

Patra, K. K., et al.	2019	Molecular dynamics investigation of a redox switch in the anti-HIV protein SAMHD1	SAMHD1		7
Niazi, A. K., et al.	2019	Cytosolic Isocitrate Dehydrogenase from Arabidopsis thaliana Is Regulated by Glutathionylation	cICDH		7
Nakada, D.	2019	Venetolax with Azacitidine Drains Fuel from AML Stem Cells	succinate dehydrogenase		7
Liu, X., et al.	2019	Structural Insights into Substrate Selectivity, Catalytic Mechanism, and Redox Regulation of Rice Photosystem II Core Phosphatase	PSII core proteins: D1, D2, CP43, and PsbH		6
Leme, J. M. M., et al.	2019	Mutations of Cys and Ser residues in the alpha5-subunit of the 20S proteasome from Saccharomyces cerevisiae affects gating and chronological lifespan	Cys76 and Cys221 in alpha5 subunit		5
Jones, C. L., et al.	2019	Cysteine depletion targets leukemia stem cells through inhibition of electron transport complex II	succinate dehydrogenase A		2
Jin, Y., et al.	2019	Top-down Mass Spectrometry of Sarcomeric Protein Post-translational Modifications from Non-human Primate Skeletal Muscle	23 protein isoforms with 46 proteoforms of sarcomeric proteins	*Does not list specifics in abstract	1
Hindy, M. E. L., et al.	2019	Redox-Regulated, Targeted Affinity Isolation of NADH-Dependent Protein Interactions with the Branched Chain Aminotransferase Proteins	human branched chain aminotransferase (hBCAT)		7
Hara, S., et al.	2019	Reversible S-glutathionylation of human 6-pyruvoyl tetrahydropterin synthase protects its enzymatic activity	human 6-pyruvoyl tetrahydropterin synthase		2
Haeussler, K., et al.	2019	Glucose 6-phosphate dehydrogenase 6-phosphogluconolactonase: characterization of the Plasmodium vivax enzyme and inhibitor studies	PvG6PD	*"Like the P. falciparum enzyme, PvG6PD is hardly affected by S-glutathionylation"	2
Guerby, P., et al.	2019	High glutathionylation of placental endothelial nitric oxide synthase in preeclampsia	placental endothelial nitric oxide synthase		4
Gorelenkova Miller, O., et al.	2019	Critical Roles of Glutaredoxin in Brain Cells-Implications for Parkinson's Disease	Glutaredoxin		4
Giustarini, D., et al.	2019	Membrane Skeletal Protein S-Glutathionylation in Human Red Blood Cells as Index of Oxidative Stress	hemoglobin and membrane-associated skeletal proteins:spectrin, ankyrin, and bands 3, 4.1, and 4.2	*"Western blot analysis indicated spectrin, ankyrin, and bands 3, 4.1, and 4.2 as the proteins most susceptible to S-glutathionylation in RBC membrane."	1
Forshaw, T. E., et al.	2019	Detection of S-Nitrosation and S-Glutathionylation of the Human Branched-Chain Aminotransferase Proteins	hBCATc and hBCATm		7
Eckstein, M., et al.	2019	Differential regulation of Ca(2+) influx by ORAI channels mediates enamel mineralization	SERCA		7

Dordevic, M., et al.	2019	Centaurium erythraea extract improves survival and functionality of pancreatic beta-cells in diabetes through multiple routes of action	MnSOD, CuZnSOD and CAT enzyme		4
Chu-Puga, A., et al.	2019	NADPH Oxidase (Rboh) Activity is Up Regulated during Sweet Pepper (Capsicum annuum L.) Fruit Ripening	CaRboh		4
Castro-Torres, E., et al.	2019	Structural basis for the modulation of plant cytosolic triosephosphate isomerase activity by mimicry of redox-based modifications	AtcTPI		2
Butturini, E., et al.	2019	STAT1 drives M1 microglia activation and neuroinflammation under hypoxia	STAT1		3
Ahuie Kouakou, G., et al.	2019	Dehydroascorbic acid S-Thiolation of peptides and proteins: Role of homocysteine and glutathione	AcFHACAAK		7
Zhou, x., et al.	2018	Serine prevented high-fat diet-induced oxidative stress by activating AMPK and epigenetically modulating the expression of glutathione synthesis-related genes	AMP-activated protein kinase alpha subunit		3
Zhang, J., et al.	2018	S-Glutathionylation of estrogen receptor alpha affects dendritic cell function	ERalpha		3
Yang, F., et al.	2018	Glutaredoxin-1 Silencing Induces Cell Senescence via p53/p21/p16 Signaling Axis	DJ-1 and HSP60		3; 5
Wongtrakul, J., et al.	2018	Proteomic analysis of human glutathione transferase omega (hGSTO1) stable transfection in a 6-hydroxydopamine-induced neuronal cells	hGSTO1		
Wen, H., et al.	2018	Neuroglobin mediates neuroprotection of hypoxic postconditioning against transient global cerebral ischemia in rats through preserving the activity of Na(+)/K(+) ATPases	membranous Atp1b1		1; 2
Wei, L., et al.	2018	Novel Sarcopenia-related Alterations in Sarcomeric Protein Post-translational Modifications (PTMs) in Skeletal Muscles Identified by Top-down Proteomics	troponin I		1
Wang, Z., et al.	2018	Quantification of thioether-linked glutathione modifications in human lens proteins	Cys117 of betaA3, Cys80 of betaB1 and Cys27 of gammaS	*"In total, irreversible glutathionylation was detected on 52 sites including cysteine, serine and threonine residues in 18 proteins in human lenses."	1
Wang, G.	2018	Removal of the Fe(iii) site promotes activation of the human cystic fibrosis transmembrane conductance regulator by high-affinity Zn(ii) binding	C1344 in NBD2		7

van Deel, E. D., et al.	2018	Exercise Training Has Contrasting Effects in Myocardial Infarction and Pressure Overload Due to Divergent Endothelial Nitric Oxide Synthase Regulation	eNOS	*"Similarly, elevated eNOS S-glutathionylation and eNOS monomerization, which were observed in both MI and TAC, were corrected by EX in MI, but aggravated by EX after TAC. "	4
Storm, A. R., et al.	2018	Glutathionylation Inhibits the Catalytic Activity of Arabidopsis beta-Amylase3 but Not That of Paralog beta-Amylase1	BAM3 at cysteine 433		7
Stein, K. T., et al.	2018	Mitochondrial H2O2 Generation Using a Tunable Chemogenetic Tool To Perturb Redox Homeostasis in Human Cells and Induce Cell Death	d-amino acid oxidase		8
Seflova, J., et al.	2018	Identification of cisplatin-binding sites on the large cytoplasmic loop of the Na(+)/K(+)-ATPase	five cysteinyl residues (C452, C456, C457, C577, and C656)		7
Secinaro, M. A., et al.	2018	Glycolysis promotes caspase-3 activation in lipid rafts in T cells	caspase-3		8
Saisawang, C., et al.	2018	Glutathionylation of dengue and Zika NS5 proteins affects guanylyltransferase and RNA dependent RNA polymerase activities	NS5		7
Prasai, P. K., et al.	2018	Decreases in GSH:GSSG activate vascular endothelial growth factor receptor 2 (VEGFR2) in human aortic endothelial cells	VEGFR2		3
Pollyea, D. A., et al.	2018	Venetoclax with azacitidine disrupts energy metabolism and targets leukemia stem cells in patients with acute myeloid leukemia	succinate dehydrogenase		2
Penna, C., et al.	2018	Redox Aspects of Chaperones in Cardiac Function	chaperone proteins		5
Parsanathan, R., et al.	2018	Hydrogen sulfide increases glutathione biosynthesis, and glucose uptake and utilisation in C2C12 mouse myotubes	LC transporter and GLUT4		2
Nikolaienko, R., et al.	2018	Redox Dependent Modifications of Ryanodine Receptor: Basic Mechanisms and Implications in Heart Diseases	RyR2		7
Nagarkoti, S., et al.	2018	S-Glutathionylation of p47phox sustains superoxide generation in activated neutrophils	p47phox		4
Muronetz, V. I., et al.	2018	Influence of Oxidative Stress on Catalytic and Non-glycolytic Functions of Glyceraldehyde-3-phosphate dehydrogenase	GAPDH		2
Munkanatta Godage, D. N. P., et al.	2018	SMYD2 glutathionylation contributes to degradation of sarcomeric proteins	SMYD2		7
Mane, S. D., et al.	2018	Ascorbyl stearate and ionizing radiation potentiate apoptosis through intracellular thiols and oxidative stress in murine T lymphoma cells	IKK, p50-NF-kB and mutated p53		3

Mandato A., et al.	2018	Regulation of antigen 85C activity by reversible S-glutathionylation	antigen 85C		1
Ma, T., et al.	2018	Characterization of thiol-based redox modifications of Brassica napusSNF1-related protein kinase 2.6-2C	BnSnRK2.6-2C		6
Li, X., et al.	2018	Glutathione reductase-mediated thiol oxidative stress suppresses metastasis of murine melanoma cells	actin		1
Kramer, P. A., et al.	2018	Fatiguing contractions increase protein S-glutathionylation occupancy in mouse skeletal muscle	mitochondrial complex I and II, GAPDH, MDH1, ACO2, mitochondrial complex V, RYR1, SERCA1, titin, and troponin I2, 14-3-3 protein gamma and MAP2K4, as well as proteins like SERCA1, and NDUV2 of mitochondrial complex I		
Jeon, D., et al.	2018	Protein S-glutathionylation induced by hypoxia increases hypoxia-inducible factor-1alpha in human colon cancer cells	HIF-1alpha		3
Gill, R. M., et al.	2018	Protein S-glutathionylation lowers superoxide/hydrogen peroxide release from skeletal muscle mitochondria through modification of complex I and inhibition of pyruvate uptake	NDUSF1		4
Galeazzi, R., et al.	2018	Protein-protein interactions of human glyoxalase II: findings of a reliable docking protocol	GlxII, actin, malate dehydrogenase (MDH) and glyceraldehyde-3-phosphate dehydrogenase (GAPDH)		4; 7; 1
Espinosa-Diez, C., et al.	2018	Role of glutathione biosynthesis in endothelial dysfunction and fibrosis	eNOS		4
Edenbaum, H., et al.	2018	Assessment of S-Glutathionylated Rac1 in Cells Using Biotin-Labeled Glutathione	Rac1		7
Dumont, S., et al.	2018	Arabidopsis thaliana alcohol dehydrogenase is differently affected by several redox modifications	alcohol dehydrogenase (ADH) from Arabidopsis thaliana		7
Dou, X., et al.	2018	Glutathione disulfide sensitizes hepatocytes to TNFalpha-mediated cytotoxicity via IKK-beta S-glutathionylation: a potential mechanism underlying non-alcoholic fatty liver disease	IKK-beta		3
Dominko, K., et al.	2018	Glutathionylation: a regulatory role of glutathione in physiological processes	major transcriptional factors, eicosanoids, cytokines, and nitric oxide		
Di Fiore, A., et al.	2018	Protective Role of Carbonic Anhydrases III and VII in Cellular Defense Mechanisms upon Redox Unbalance	carbonic anhydrases (CAs) III and VII		7
Dergousova, E. A., et al.	2018	Glutathionylation of Na,K-ATPase Alpha-Subunit Alters Enzyme Conformation and Sensitivity to Trypsinolysis	Na,K-ATPase Alpha-Subunit		7
Dergousova, E. A., et al.	2018	[Enhancement of Na,K-ATPase Activity as a Result of Removal of Redox Modifications from Cysteine Residues of the al Subunit: the Effect of Reducing Agents]	alpha subunit of Na,K-ATPase		7

Das, R., et al.	2018	Molecular insights of inhibition in sickle hemoglobin polymerization upon glutathionylation: hydrogen/deuterium exchange mass spectrometry and molecular dynamics simulation-based approach	betaCys93 in HbS		1
Chan, J. C. Y., et al.	2018	Reactive Metabolite-induced Protein Glutathionylation: A Potentially Novel Mechanism Underlying Acetaminophen Hepatotoxicity	carnitine O-palmitoyltransferase 1 (CPT1) and voltage-dependent anion-selective channel protein 1		7
Chakouri, N., et al.	2018	Stress-induced protein S-glutathionylation and phosphorylation crosstalk in cardiac sarcomeric proteins - Impact on heart function	MyBP-C		1
Cao, M., et al.	2018	Characterization and analysis of scFv-IgG bispecific antibody size variants	scFv-IgG bispecific antibody		
Butturini, E., et al.	2018	S-glutathionylation exerts opposing roles in the regulation of STAT1 and STAT3 signaling in reactive microglia	STAT1 and STAT3		3
Brandstaedeter, C., et al.	2018	Kinetic characterization of wild-type and mutant human thioredoxin glutathione reductase defines its reaction and regulatory mechanisms	hTGR, including Cys93, Cys133, and Cys619		4
Bocedi, A., et al.	2018	The extreme hyper-reactivity of Cys94 in lysozyme avoids its amorphous aggregation	Cys94 in lysozyme		7
Blanco-Sanchez, B., et al.	2018	Grxcr1 Promotes Hair Bundle Development by Destabilizing the Physical Interaction between Harmonin and Sans Usher Syndrome Proteins	USH1 mutants ush1c (Harmonin) and ush1ga (Sans)		1
Ait Mou, Y., et al.	2018	Altered myofilament structure and function in dogs with Duchenne muscular dystrophy cardiomyopathy	cardiac Myosin Binding Protein-C (cMyBP-C)		1
Zhou, M., et al.	2017	Profiling of Histone Post-Translational Modifications in Mouse Brain with High-Resolution Top-Down Mass Spectrometry	H3 histone		1
Zhang, X., et al.	2017	Positive Regulation of Interleukin-1beta Bioactivity by Physiological ROS-Mediated Cysteine S-Glutathionylation	Cys-188 in IL-1beta		3
Ye, Z. W., et al.	2017	Glutathione S-Transferase P-Mediated Protein S-Glutathionylation of Resident Endoplasmic Reticulum Proteins Influences Sensitivity to Drug-Induced Unfolded Protein Response	immunoglobulin heavy chain-binding protein [BiP], protein disulfide isomerase [PDI], calnexin, calreticulin, endoplasmin, sarco/endoplasmic reticulum Ca(2+)-ATPase [SERCA]		5
Wang, Y., et al.	2017	Novel enhancement mechanism of tyrosine hydroxylase enzymatic activity by nitric oxide through S-nitrosylation	Tyrosine hydroxylase (TH)		7
Suvorava, T., et al.	2017	Selective impairment of blood pressure reduction by endothelial nitric oxide synthase dimer destabilization in mice	eNOS		4
Stojkov, D., et al.	2017	ROS and glutathionylation balance cytoskeletal dynamics in neutrophil extracellular trap formation	actin and tubulin		1

Shang, Q., et al.	2017	Contribution of glutaredoxin-1 to S-glutathionylation of endothelial nitric oxide synthase for mesenteric nitric oxide generation in experimental necrotizing enterocolitis	eNOS		4
Saisawang, C., et al.	2017	Glutathionylation of chikungunya nsP2 protein affects protease activity	chikungunya nsP2		7
Portman, J. L., et al.	2017	Activity of the Pore-Forming Virulence Factor Listeriolysin O Is Reversibly Inhibited by Naturally Occurring S-Glutathionylation	CDC listeriolysin O (LLO)		7
Petrushanko, I. Y., et al.	2017	Cysteine residues 244 and 458-459 within the catalytic subunit of Na,K-ATPase control the enzyme's hydrolytic and signaling function under hypoxic conditions	Cys244 in the AD and Cys 454-458-459 in the NBD of the Na,K-ATPase		7
Octavia, Y., et al.	2017	Folic acid reduces doxorubicin-induced cardiomyopathy by modulating endothelial nitric oxide synthase	eNOS		4
O'Brien, M., et al.	2017	Protein S-glutathionylation alters superoxide/hydrogen peroxide emission from pyruvate dehydrogenase complex	Pdh and Ogdh		7
Muronetz, V. I., et al.	2017	Glyceraldehyde-3-phosphate dehydrogenase: Aggregation mechanisms and impact on amyloid neurodegenerative diseases	glyceraldehyde-3-phosphate dehydrogenase (GAPDH)		7
Muralidharan, P., et al.	2017	The cardiac L-type calcium channel alpha subunit is a target for direct redox modification during oxidative stress-the role of cysteine residues in the alpha interacting domain	L-type calcium channel		7
Moffett, A. S., et al.	2017	Allosteric Control of a Plant Receptor Kinase through S-Glutathionylation	Arabidopsis thaliana kinase BRASSINOSTEROID INSENSITIVE 1-ASSOCIATED RECEPTOR-LIKE KINASE 1 (BAK1)		6
Mitchell, A., et a.	2017	Glutathionylation of Yersinia pestis LcrV and Its Effects on Plague Pathogenesis	Yersinia pestis LcrV		1
Matsuo, K., et al.	2017	Combined l-citrulline and glutathione administration prevents neuronal cell death following transient brain ischemia	eNOS		4
Maryam, A., et al.	2017	Alantolactone induces apoptosis, promotes STAT3 glutathionylation and enhances chemosensitivity of A549 lung adenocarcinoma cells to doxorubicin via oxidative stress	STAT3		4
Luzarowski, M., et al.	2017	Affinity purification with metabolomic and proteomic analysis unravels diverse roles of nucleoside diphosphate kinases	NDPK1		6
Li, X., et al.	2017	Fecal microbiota transplantation (FMT) could reverse the severity of experimental necrotizing enterocolitis (NEC) via oxidative stress modulation	eNOS		4

Li, X., et al.	2017	2-Acetylamino-3-[4-(2-acetylamino-2-carboxyethylsulfanylcarbonylamino) phenyl carbamoylsulfanyl] propionic acid, a glutathione reductase inhibitor, induces G2/M cell cycle arrest through generation of thiol oxidative stress in human esophageal cancer cells	alpha-tubulin		1
Lakunina, V. A., et al.	2017	Alzheimer's disease Abeta42 peptide induces an increase in Na,K-ATPase glutathionylation	alpha-subunit of Na,K-ATPase		7
Hughes, M. M., et al.	2017	Solution structure of the TLR adaptor MAL/TIRAP reveals an intact BB loop and supports MAL Cys91 glutathionylation for signaling	MyD88 adaptor-like (MAL), especially C91		6
Guglielmo, A., et al.	2017	A mechanistic insight into curcumin modulation of the IL-1beta secretion and NLRP3 S-glutathionylation induced by needle-like cationic cellulose nanocrystals in myeloid cells	NLRP3		3
Gergondey, R., et al.	2017	Modulation of the specific glutathionylation of mitochondrial proteins in the yeast Saccharomyces cerevisiae under basal and stress conditions	S. cerevisiae under basal conditions		2
Dutka, T. L., et al.	2017	S-nitrosylation and S-glutathionylation of Cys134 on troponin I have opposing competitive actions on Ca(2+) sensitivity in rat fast-twitch muscle fibers	Cys134 on fast troponin I (TnIf)		1
Dong, Z., et al.	2017	Mitochondrial Ca(2+) Uniporter Is a Mitochondrial Luminal Redox Sensor that Augments MCU Channel Activity	onserved cysteine 97 (Cys-97) to be the only reactive thiol in human MCU that undergoes S-glutathionylation	*the only reactive thiol in human MCU that undergoes S-glutathionylation	7
Dikalova, A. E., et al.	2017	Sirt3 Impairment and SOD2 Hyperacetylation in Vascular Oxidative Stress and Hypertension	Sirt3		7
Dergousova, E. A., et al.	2017	Effect of Reduction of Redox Modifications of Cys-Residues in the Na,K-ATPase alpha1-Subunit on Its Activity	Na,K-ATPase alpha1-subunit		7
de Winter, J. M., et al.	2017	A two-faced cysteine residue modulates skeletal muscle contraction. Focus on "S-nitrosylation and S-glutathionylation of Cys134 on troponin I have opposing competitive actions on Ca(2+) sensitivity in rat fast-twitch muscle fibers	Cys134 on troponin I		1
Charbonnel, C., et al.	2017	The siRNA suppressor RTL1 is redox-regulated through glutathionylation of a conserved cysteine in the double-stranded-RNA-binding domain	C230		7
Chandel, A., et al.	2017	Redox regulation of the yeast voltage-gated Ca(2+) channel homolog Cch1p by glutathionylation of specific cysteine residues	Cch1p		7
Castella, C., et al.	2017	Post-translational modifications of Medicago truncatula glutathione peroxidase 1 induced by nitric oxide	the three conserved Cys of MtGpx1		4

Calderon, A., et al.	2017	Glutathionylation of Pea Chloroplast 2-Cys Prx and Mitochondrial Prx IIF Affects Their Structure and Peroxidase Activity and Sulfiredoxin Deglutathionylates Only the 2-Cys Prx	Pea Chloroplast 2-Cys Prx and Mitochondrial Prx IIF		4
Bubb, K. J., et al.	2017	The NRF2 activator DH404 attenuates adverse ventricular remodeling post-myocardial infarction by modifying redox signalling	eNOS		4
Barinova, K. V., et al.	2017	S-glutathionylation of glyceraldehyde-3-phosphate dehydrogenase induces formation of C150-C154 intrasubunit disulfide bond in the active site of the enzyme	GAPDH		2
Zhou, S., et al.	2016	Peroxiredoxin 6 homodimerization and heterodimerization with glutathione S-transferase pi are required for its peroxidase but not phospholipase A2 activity	Prdx6		4
Zhang, H., et al.	2016	Glutathionylation of the Bacterial Hsp70 Chaperone DnaK Provides a Link between Oxidative Stress and the Heat Shock Response	DnaK		5
Yang, K., et al.	2016	A redox mechanism underlying nucleolar stress sensing by nucleophosmin	NPM1 on C275		1
Watanabe, D., et al.	2016	Predominant cause of prolonged low-frequency force depression changes during recovery after in situ fatiguing stimulation of rat fast-twitch muscle	troponin I		1
Wang, J., et al.	2016	Formation and Reversibility of BiP Protein Cysteine Oxidation Facilitate Cell Survival during and post Oxidative Stress	BiP		5
Vall-Llaura, N., Mir, N., Garrido, L., et al.	2016	Reversible glutathionylation of Sir2 by monothiol glutaredoxins Grx3/4 regulates stress resistance	Sir2		5
Subramani, J., et al.	2016	Thioredoxin Uses a GSH-independent Route to Deglutathionylate Endothelial Nitric-oxide Synthase and Protect against Myocardial Infarction	eNOS		4
Srivenugopal, K. S., et al.	2016	Posttranslational Regulation of O(6)-Methylguanine-DNA Methyltransferase (MGMT) and New Opportunities for Treatment of Brain Cancers	MGMT		7
Singh, A. K., et al.	2016	High oxidative stress adversely affects NFkappaB mediated induction of inducible nitric oxide synthase in human neutrophils: Implications in chronic myeloid leukemia	NFkappaB (p50 and p65 subunits), NOX2-mtROS-NFkappaB		4
Shults, N. V., et al.	2016	Major vault protein in cardiac and smooth muscle	MVP		1
Samarasinghe, K. T., et al.	2016	A clickable glutathione approach for identification of protein glutathionylation in response to glucose metabolism	PP2Calpha C314		2
Pretzel, J., et al.	2016	Characterization and redox regulation of Plasmodium falciparum methionine adenosyltransferase	PfalMAT		7

Peskin, A. V., et al.	2016	Glutathionylation of the Active Site Cysteines of Peroxiredoxin 2 and Recycling by Glutaredoxin	Prx2		4
Panera, N., et al.	2016	High concentrations of H2O2 trigger hypertrophic cascade and phosphatase and tensin homologue (PTEN) glutathionylation in H9c2 cardiomyocytes	PTEN		6
Pal, D., et al.	2016	Prediction of glutathionylation sites in proteins using minimal sequence information and their experimental validation	*A list of potential glutathionylation hotspot sequences were obtained by assigning G-scores and subsequent Protein-BLAST analysis revealed a total of 254 putative glutathionable proteins, a number of which were already known to be glutathionylated.		
Ozkosem, B., et al.	2016	Absence of Peroxiredoxin 6 Amplifies the Effect of Oxidant Stress on Mobility and SCSA/CMA3 Defined Chromatin Quality and Impairs Fertilizing Ability of Mouse Spermatozoa	PRDX6		4
Muralidharan, P., et al.	2016	Evidence for redox sensing by a human cardiac calcium channel	Cav1.2		7
Mitkevich, V. A., et al.	2016	Basal Glutathionylation of Na,K-ATPase alpha-Subunit Depends on Redox Status of Cells during the Enzyme Biosynthesis	Na,K-ATPase		2
Mercer, S. W., et al.	2016	Reduced glutathione biosynthesis in Drosophila melanogaster causes neuronal defects linked to copper deficiency	Atox1 and the ATP7 efflux protein		1
McMillan, D. H., et al.	2016	Attenuation of lung fibrosis in mice with a clinically relevant inhibitor of glutathione-S-transferase pi	FAS		3
Mailloux, R. J., et al.	2016	Induction of mitochondrial reactive oxygen species production by GSH mediated S-glutathionylation of 2-oxoglutarate dehydrogenase	Ogdh		2
Liu, C. C., et al.	2016	Silencing overexpression of FXYD3 protein in breast cancer cells amplifies effects of doxorubicin and gamma-radiation on Na(+)/K(+)-ATPase and cell survival	beta1 subunit of Na(+)/K(+)-ATPase		
Li, Q., et al.	2016	Phenylethyl isothiocyanate reverses cisplatin resistance in biliary tract cancer cells via glutathionylation-dependent degradation of Mcl-1	Mcl-1		8
Kim, H. S., et al.	2016	Monocytic MKP-1 is a Sensor of the Metabolic Environment and Regulates Function and Phenotypic Fate of Monocyte-Derived Macrophages in Atherosclerosis	MKP-1		7
Karimi Galougahi, K., et al.	2016	beta3 Adrenergic Stimulation Restores Nitric Oxide/Redox Balance and Enhances Endothelial Function in Hyperglycemia	eNOS		4

Jones, J. T., et al.	2016	Glutathione S-transferase pi modulates NF-kappaB activation and pro-inflammatory responses in lung epithelial cells	IKK, IKKbeta		3
Johnson, W. M., et al.	2016	Regulation of DJ-1 by Glutaredoxin 1 in Vivo: Implications for Parkinson's Disease	DJ-1		1
Jeong, E. M., et al.	2016	Role of Mitochondrial Oxidative Stress in Glucose Tolerance, Insulin Resistance, and Cardiac Diastolic Dysfunction	cardiac myosin binding protein C		2
Itani, H. A., et al.	2016	Mitochondrial Cyclophilin D in Vascular Oxidative Stress and Hypertension	CypD		7
Heppner, D. E., et al.	2016	The NADPH Oxidases DUOX1 and NOX2 Play Distinct Roles in Redox Regulation of Epidermal Growth Factor Receptor Signaling	EGFR and the non-receptor-tyrosine kinase Src		4
Heiss, E. H., et al.	2016	Plumericin inhibits proliferation of vascular smooth muscle cells by blocking STAT3 signaling via S-glutathionylation	Stat3		3
Han, J., et al.	2016	The redox mechanism for vascular barrier dysfunction associated with metabolic disorders: Glutathionylation of Rac1 in endothelial cells	Rac1 on cysteine 81 and 157		3
Gietler, M., et al.	2016	Proteomic analysis of S-nitrosylated and S-glutathionylated proteins in wheat seedlings with different dehydration tolerances	leaf-specific thionins BTH6 and DB4, chloroplastic 50S ribosomal protein L16, phospholipase A1-II delta, and chloroplastic thioredoxin M2		5
Gergondey, R., et al.	2016	The adaptive metabolic response involves specific protein glutathionylation during the filamentation process in the pathogen Candida albicans	isocitrate lyase		7
Garcia, A., et al.	2016	Glutathionylation-Dependence of Na(+)-K(+)-Pump Currents Can Mimic Reduced Subsarcolemmal Na(+) Diffusion	beta1 Na(+)-K(+) pump subunit		7
Gandhirajan, R. K., et al.	2016	Cysteine S-Glutathionylation Promotes Stability and Activation of the Hippo Downstream Effector Transcriptional Co-activator with PDZ-binding Motif (TAZ)	Transcriptional co-activator with PDZ-binding motif (TAZ)		3
Fay, J. M., et al.	2016	A Phosphomimetic Mutation Stabilizes SOD1 and Rescues Cell Viability in the Context of an ALS-Associated Mutation	Cu,Zn superoxide dismutase (SOD1)		4
Ercolani, L., et al.	2016	A possible S-glutathionylation of specific proteins by glyoxalase II: An in vitro and in silico study	glyoxalase II and its substrate S-d-lactoylglutathione	*"In this work, the enzyme glyoxalase II and its substrate S-d-lactoylglutathione were incubated with malate dehydrogenase or with actin, resulting in a glutathionylation reaction."	4

Dumont, S., et al.	2016	Cytosolic Triosephosphate Isomerase from Arabidopsis thaliana Is Reversibly Modified by Glutathione on Cysteines 127 and 218	cytosolic isoform of the glycolytic enzyme triosephosphate isomerase (cTPI)		7
Dong, K., et al.	2016	Glutaredoxins concomitant with optimal ROS activate AMPK through S-glutathionylation to improve glucose metabolism in type 2 diabetes	AMPK-alpha catalytic subunit		3
Chen, L., et al.	2016	Pivotal role of glutathione depletion in eNOS uncoupling of LPS-Treated HUVECs	eNOS		4
Chen, H., et al.	2016	Reductions in the mitochondrial enzyme alpha-ketoglutarate dehydrogenase complex in neurodegenerative disease - beneficial or detrimental?	alpha-ketoglutarate dehydrogenase complex (KGDHC)		2
Chandel, A., et al.	2016	Glutathione depletion activates the yeast vacuolar transient receptor potential channel, Yvc1p, by reversible glutathionylation of specific cysteines	Yvc1p, specifically Cys-17, Cys-79, and Cys-191		1; 7
Chan, K. X., et al.	2016	Sensing and signaling of oxidative stress in chloroplasts by inactivation of the SAL1 phosphoadenosine phosphatase	Arabidopsis thaliana SAL1 (AtSAL1)		6
Carvalho, A. N., et al.	2016	S-Glutathionylation of Keap1: a new role for glutathione S-transferase pi in neuronal protection	Kelch-like ECH-associated protein 1 (Keap1)		4
Canli, O., et al.	2016	Glutathione peroxidase 4 prevents necroptosis in mouse erythroid precursors	caspase 8		8
Brigelius-Flohe, R.	2016	Mixed results with mixed disulfides	glutathione-6-phosphate dehydrogenase (G6PDH)	*"might be activated by glutathionylation."	4; 7
Bohmer, A., et al.	2016	Evidence by chromatography and mass spectrometry that inorganic nitrite induces S-glutathionylation of hemoglobin in human red blood cells	hemoglobin		1; 4
Bogdanova, A., et al.	2016	"Oxygen Sensing" by Na,K-ATPase: These Miraculous Thiols	Na,K-ATPase		4; 1
Becerra, R., et al.	2016	Reversible redox modifications of ryanodine receptor ameliorate ventricular arrhythmias in the ischemic-reperfused heart	RyR2		7
Basak, D., et al.	2016	Piperlongumine exerts cytotoxic effects against cancer cells with mutant p53 proteins at least in part by restoring the biological functions of the tumor suppressor	two human colon cancer cell lines, the HT29 and SW620		3
Apuy, J. L., et al.	2016	Formation of A Novel Purine Metabolite through CYP3A4 Bioactivation and Glutathione Conjugation	C-6 position of a purine		
Wilder, T., et al.	2015	N-acetylcysteine reverses diastolic dysfunction and hypertrophy in familial hypertrophic cardiomyopathy	cardiac myosin-binding protein C (cMyBP-C)		1
Watanabe, D., et al.	2015	Contribution of impaired myofibril and ryanodine receptor function to prolonged low-frequency force depression after in situ stimulation in rat skeletal muscle	troponin I		1
Vila-Rico, M., et al.	2015	Quantitative analysis of post-translational modifications in human serum transthyretin associated with familial amyloidotic polyneuropathy by targeted LC-MS and intact protein MS	Transthyretin		1

van Deel, E. D., et al.	2015	Normal and high eNOS levels are detrimental in both mild and severe cardiac pressure-overload	eNOS		4
Utter, M. S., et al.	2015	Impact of anesthesia and storage on posttranslational modifications of cardiac myofilament proteins	MyBP-C		1
Thieulin-Pardo, G., et al.	2015	Phosphoribulokinase from Chlamydomonas reinhardtii: a Benson-Calvin cycle enzyme enslaved to its cysteine residues	Cys16 of PRK		7
Singh, I., et al.	2015	STAT3 Regulation By S-Nitrosylation: Implication In Cancer	STAT3		3
Roy, A., et al.	2015	Cigarette smokers develop structurally modified hemoglobin: a possible way of increasing oxidative stress	hemoglobin		1; 4
Rahaman, S. M., et al.	2015	Angiotensin II inhibits Na+/K+ATPase activity in pulmonary artery smooth muscle cells via glutathionylation and with the involvement of a 15.6 kDa inhibitor protein	Na+/K+ATPase		1; 2
Qiu, W., et al.	2015	ATP Binding and Hydrolysis Properties of ABCB10 and Their Regulation by Glutathione	ABCB10		1
Petrushanko, I. Y., et al.	2015	[The ability of cells to adjust to the low oxigen content associated with Na,K-ATPase glutationilation]	Na,K-ATPase catalytic subunit		1
Peng, H., et al.	2015	The Characteristics and Regulatory Mechanisms of Superoxide Generation from eNOS Reductase Domain	eNOS		4
Park, S. W., et al.	2015	Hydrogen peroxide induces vasorelaxation by enhancing 4-aminopyridine-sensitive Kv currents through S-glutathionylation	4-aminopyridine (4-AP)-sensitive Kv channels	*"These data suggest that H2O2 activates 4-AP-sensitive Kv channels, possibly through S-glutathionylation,..."	1
Niu, W. N., et al.	2015	S-glutathionylation enhances human cystathionine beta-synthase activity under oxidative stress conditions	Cystathionine beta-synthase (CBS)		4
Muramoto, S., et al.	2015	Glutathionylation and Reduction of Methacrolein in Tomato Plants Account for Its Absorption from the Vapor Phase	MACR		
Mullen, L., et al.	2015	Development of 'Redox Arrays' for identifying novel glutathionylated proteins in the secretome	IL-1 sRII and Lyn		4; 1
McGarry, D. J., et al.	2015	Altered protein S-glutathionylation identifies a potential mechanism of resistance to acetaminophen-induced hepatotoxicity	glutamate cysteine ligase		4
Maki, K., et al.	2015	Temporal changes in glutaredoxin 1 and protein s-glutathionylation in allergic airway inflammation	bronchoalveolar lavage fluid (BALF)		
Llanos, P., et al.	2015	Glucose-Dependent Insulin Secretion in Pancreatic beta-Cell Islets from Male Rats Requires Ca2+ Release via ROS-Stimulated Ryanodine Receptors	RyR2		7
Liu, X., et al.	2015	Glutaredoxin 1 (Grx1) Protects Human Retinal Pigment Epithelial Cells From Oxidative Damage by Preventing AKT Glutathionylation	Protein kinase B, AKT		3

Lin, J. C., et al.	2015	Glutathionylspermidine in the modification of protein SH groups: the enzymology and its application to study protein glutathionylation	tissue transglutaminase		
Li, K., et al.	2015	Glutamine Reduces the Apoptosis of H9C2 Cells Treated with High-Glucose and Reperfusion through an Oxidation-Related Mechanism	cytochrome c and caspase-3 (in cardiomyoblast H9C2 cells?)		8
Lamboley, C. R., et al.	2015	Contractile properties and sarcoplasmic reticulum calcium content in type I and type II skeletal muscle fibres in active aged humans	fast troponin I (TnIf)		1
Kim, M. J., et a;.	2015	Mechanism of 1-Cys type methionine sulfoxide reductase A regeneration by glutaredoxin	cMsrA		4; 7
Karimi Galougahi, K., et al.	2015	beta3-Adrenoceptor activation relieves oxidative inhibition of the cardiac Na+-K+ pump in hyperglycemia induced by insulin receptor blockade	eNOS and the Na(+)-K(+) pump beta1-subunit,		2
Kang, P. T., et al.	2015	Increased mitochondrial prooxidant activity mediates up-regulation of Complex I S-glutathionylation via protein thiyl radical in the murine heart of eNOS(-/-)	mitochondrial Complex I		4; 7
Juel, C., et al.	2015	The effect of exercise and beta2-adrenergic stimulation on glutathionylation and function of the Na,K-ATPase in human skeletal muscle	Na,K-ATPase		1
Jayaram, R., et al.	2015	Molecular mechanisms of myocardial nitroso-redox imbalance during on-pump cardiac surgery	eNOS		4
Jaramillo, M. C., et al.	2015	Manganese (III) meso-tetrakis N-ethylpyridinium-2-yl porphyrin acts as a pro-oxidant to inhibit electron transport chain proteins, modulate bioenergetics, and enhance the response to chemotherapy in lymphoma cells	mitochondrial Complexes I, III, and IV in the electron transport chain		7
Hong, C., et al.	2015	Increased TRPC5 glutathionylation contributes to striatal neuron loss in Huntington's disease	TRPC5		1
Hildebrandt, T., et al.	2015	Cytosolic thiol switches regulating basic cellular functions: GAPDH as an information hub?	GAPDH		4; 7
Henze, A., et al.	2015	Post-translational modifications of transthyretin affect the triiodonine-binding potential	Transthyretin		1
Hafner, A. K., et al.	2015	Characterization of the interaction of human 5-lipoxygenase with its activating protein FLAP	Human 5-lipoxygenase (5-LO)		7
Gorelenkova Miller, O., et al.	2015	Sulfhydryl-mediated redox signaling in inflammation: role in neurodegenerative diseases	cysteine sulfhydryl (-SH) moieties		4
Garcia, A., et al.	2015	Membrane accessibility of glutathione	Na+,K+-ATPase		1
Feng, S., et al.	2015	Development of a Clickable Probe for Profiling of Protein Glutathionylation in the Central Cellular Metabolism of E. coli and Drosophila	*Escherichia coli and Drosophila lysates, in which 937 and 1,930 potential glutathionylated peptides were identified, respectively		
Espinosa-Diez, C., et al.	2015	Targeting of Gamma-Glutamyl-Cysteine Ligase by miR-433 Reduces Glutathione Biosynthesis and Promotes TGF-beta-Dependent Fibrogenesis	human umbilical vein endothelial cells		4

Dubey, M., et al.	2015	L-Plastin S-glutathionylation promotes reduced binding to beta-actin and affects neutrophil functions	L-plastin (LPL) and beta-actin		1
Downs, C. A., et al.	2015	Oxidized glutathione (GSSG) inhibits epithelial sodium channel activity in primary alveolar epithelial cells	epithelial Na(+) channels (ENaC)		1
Datta, R., et al.	2015	Glutathione Regulates 1-Aminocyclopropane-1-Carboxylate Synthase Transcription via WRKY33 and 1-Aminocyclopropane-1-Carboxylate Oxidase by Modulating Messenger RNA Stability to Induce Ethylene Synthesis during Stress	ACO1		7
Chia, K. K., et al.	2015	Stimulation of the cardiac myocyte Na+-K+ pump due to reversal of its constitutive oxidative inhibition	beta1-Na(+)-K(+) pump subunit		1
Chen, Y. J.,et al.	2015	GSHSite: exploiting an iteratively statistical method to identify s-glutathionylation sites with substrate specificity	mouse thioredoxin (TXN) and human protein tyrosine phosphatase 1b (PTP1B)		4
Checker, R., et al.	2015	Plumbagin induces apoptosis in lymphoma cells via oxidative stress mediated glutathionylation and inhibition of mitogen-activated protein kinase phosphatases (MKP1/2)	MKP-1 and MKP-2		6; 8
Chardonnet, S., et al.	2015	First proteomic study of S-glutathionylation in cyanobacteria	*383 glutathionylatable proteins, namely, peroxiredoxin (Sll1621) involved in oxidative stress tolerance and 3-phosphoglycerate dehydrogenase (Sll1908) acting on amino acids metabolism		
Bender, K. W., et al.	2015	Glutaredoxin AtGRXC2 catalyses inhibitory glutathionylation of Arabidopsis BRI1-associated receptor-like kinase 1 (BAK1) in vitro	BAK1		
Beckendorf, L., et al.	2015	Emerging importance of oxidative stress in regulating striated muscle elasticity	titin		6
Almeida, A.S., et al.	2015	Assessment of mitochondrial protein glutathionylation as signaling for CO pathway	mitochondrial protein		7
Zaffagnini, M., et al.	2014	High-resolution crystal structure and redox properties of chloroplastic triosephosphate isomerase from Chlamydomonas reinhardtii	Triosephosphate isomerase (TPI), CrTPI		2; 7
Yeh, P. Y., et al.	2014	CO-releasing molecules and increased heme oxygenase-1 induce protein S-glutathionylation to modulate NF-kappaB activity in endothelial cells	NF-kappaB-p65, p65		4; 5
Ye, J., et al.	2014	Structure of Escherichia coli Grx2 in complex with glutathione: a dual-function hybrid of glutaredoxin and glutathione S-transferase	ArsC		4
Yang, Y. C., et al.	2014	Carbon monoxide induces heme oxygenase-1 to modulate STAT3 activation in endothelial cells via S-glutathionylation	STAT3		6; 3

Yang, Y., et al.	2014	S-glutathionylation of ion channels: insights into the regulation of channel functions, thiol modification crosstalk, and mechanosensing	KATP channel		
Xie, J., et al.	2014	Evaluation of a dithiocarbamate derivative as a model of thiol oxidative stress in H9c2 rat cardiomyocytes	H9c2 rat cardiomyocytes		1
Xianyu, M., et al.	2014	Glutathionylation of the alpha-subunit of Na,K-ATPase from rat heart by oxidized glutathione inhibits the enzyme	Na,K-ATPase		1
Wu, H., et al.	2014	Glutaredoxin 2 (Grx2) gene deletion induces early onset of age-dependent cataracts in mice	Actin, alphaA-crystallin, and betaB2-crystallin		1
Wu, F., et al.	2014	Nox2-dependent glutathionylation of endothelial NOS leads to uncoupled superoxide production and endothelial barrier dysfunction in acute lung injury	eNOS		4
Waszczak, C., et al.	2014	Sulfenome mining in Arabidopsis thaliana	DHAR2		
Ullevig, S. L., et al.	2014	Ursolic acid protects monocytes against metabolic stress-induced priming and dysfunction by preventing the induction of Nox4	actin		4
Tamma, G., et al.	2014	Glutathionylation of the aquaporin-2 water channel: a novel post-translational modification modulated by the oxidative stress	AQP2		1; 7
Su, D., et al.	2014	Proteomic identification and quantification of S-glutathionylation in mouse macrophages using resin-assisted enrichment and isobaric labeling	*364 Cys sites from 265 proteins that were sensitive to S-glutathionylation in response to H2O2 treatment		
Stuart, S. D., et al.	2014	A strategically designed small molecule attacks alpha-ketoglutarate dehydrogenase in tumor cells through a redox process	KGDH		2; 7
Stan, M. S., et al.	2014	Si/SiO2 quantum dots cause cytotoxicity in lung cells through redox homeostasis imbalance	actin		1
Speer, T., et al.	2014	Carbamylated low-density lipoprotein induces endothelial dysfunction	eNOS		4
Seo, M., et al.	2014	PFKFB3 regulates oxidative stress homeostasis via its S-glutathionylation in cancer	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 3 (PFKFB3) at residue Cys206,		3; 7
Scarponi, C., et al.	2014	Inhibition of inflammatory and proliferative responses of human keratinocytes exposed to the sesquiterpene lactones dehydrocostuslactone and costunolide	STAT3 and JAK1/2 proteins		3; 6
Salzano, S., et al.	2014	Linkage of inflammation and oxidative stress via release of glutathionylated peroxiredoxin-2, which acts as a danger signal	PRDX2		4
Sadhukhan, S., et al.	2014	Glutathionylated 4-hydroxy-2-(E)-alkenal enantiomers in rat organs and their contributions toward the disposal of 4-hydroxy-2-(E)-nonenal in rat liver	4-hydroxy-2-(E)-nonenal (4-HNE)		7
Rosales, M. A., et al.	2014	S-nitrosoglutathione inhibits inducible nitric oxide synthase upregulation by redox posttranslational modification in experimental diabetic retinopathy	iNOS		4

Qanungo, S., et al.	2014	N-acetyl-L-cysteine sensitizes pancreatic cancers to gemcitabine by targeting the NFkappaB pathway	p65-NFkappaB		3
Poulsen, K., et al.	2014	Distinct transthyretin oxidation isoform profile in spinal fluid from patients with Alzheimer's disease and mild cognitive impairment	Transthyretin		1
Oelze, M., etal.	2014	Glutathione peroxidase-1 deficiency potentiates dysregulatory modifications of endothelial nitric oxide synthase and vascular dysfunction in aging	endothelial NO synthase		4
Nolin, J. D., et al.	2014	The glutaredoxin/S-glutathionylation axis regulates interleukin-17A-induced proinflammatory responses in lung epithelial cells in association with S-glutathionylation of nuclear factor kappaB family proteins	RelA (RelA-SSG) and inhibitory kappaB kinase alpha (IKKalpha-SSG)		3; 4; 8
Murdoch, C. E., et al.	2014	Regulation of neovascularization by S-glutathionylation via the Wnt5a/sFlt-1 pathway	NF-kappaB components		3
Moen, R. J., et al.	2014	Redox-sensitive residue in the actin-binding interface of myosin	methionine residue in Dictyostelium discoideum (Dicty) myosin II (M394, near the myosin cardiomyopathy loop in the actin-binding interface)		1
Metere, A., et al.	2014	Carbon monoxide signaling in human red blood cells: evidence for pentose phosphate pathway activation and protein deglutathionylation	hemoglobin		2; 7
Marri, L., et al.	2014	CP12-mediated protection of Calvin-Benson cycle enzymes from oxidative stress	Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) and phosphoribulokinase (PRK)		2; 7
Marquez, V. E., et al.	2014	Redox metabolism in Trypanosoma cruzi. Biochemical characterization of dithiol glutaredoxin dependent cellular pathways	Trypanosoma cruzi		4
Mailloux, R. J., et al.	2014	Glutaredoxin-2 is required to control oxidative phosphorylation in cardiac muscle by mediating deglutathionylation reactions	mitochondrial complex I		2; 7
Mailloux, R. J., et al.	2014	S-glutathionylation reactions in mitochondrial function and disease	mitochondrial Complex I		2; 7
Luo, S., et al.	2014	Molecular mechanisms of endothelial NO synthase uncoupling	Mailloux, R. J., et al.		4
Landino, L. M., et al.	2014	Evidence for thiol/disulfide exchange reactions between tubulin and glyceraldehyde-3-phosphate dehydrogenase	GAPDH		1; 2
Kossmann, S., et al.	2014	Inflammatory monocytes determine endothelial nitric-oxide synthase uncoupling and nitro-oxidative stress induced by angiotensin II	eNOS		1; 4
Konig, K., et al.	2014	Assessing redox state and reactive oxygen species in circadian rhythmicity	peroxiredoxin IIE		5
Kimura, H.	2014	Hydrogen sulfide and polysulfides as biological mediators	cystathionine beta-synthase (CBS)		7
Kim, J., et al.	2014	STAT3 regulation by S-nitrosylation: implication for inflammatory disease	STAT3		3; 5

Kim, H. S., et al.	2014	Redox regulation of 14-3-3zeta controls monocyte migration	14-3-3zeta (zeta)		1
Kang, P. T., et al.	2014	BCNU-induced gR2 defect mediates S-glutathionylation of Complex I and respiratory uncoupling in myocardium	Complex I		2; 7
Juel, C.	2014	Oxidative stress (glutathionylation) and Na,K-ATPase activity in rat skeletal muscle	alpha and the beta units of rat skeletal muscle Na,K-ATPase		1
Johnstone, V. P., et al.	2014	Glutathionylation of the L-type Ca2+ channel in oxidative stress-induced pathology of the heart	L-type Ca2+ channel		7
Jerng, H. H., et al.	2014	S-glutathionylation of an auxiliary subunit confers redox sensitivity to Kv4 channel inactivation	DPP6a Cys-13		1; 7
Hristova, M., et al.	2014	Identification of DUOX1-dependent redox signaling through protein S-glutathionylation in airway epithelial cells	beta-actin, peroxiredoxin 1, the non-receptor tyrosine kinase Src, and MAPK phosphatase 1		4
Heiss, E. H., et al.	2014	Regulation of eNOS enzyme activity by posttranslational modification	eNOS		4
Grek, C. L., et al.	2014	S-glutathionylation of buccal cell proteins as biomarkers of exposure to hydrogen peroxide	buccal cell proteins		1
Geczy, C. L., et al.	2014	Calgranulins may contribute vascular protection in atherogenesis	S100A9		7
Gambhir, L., et al.	2014	1,4-Naphthoquinone, a pro-oxidant, suppresses immune responses via KEAP-1 glutathionylation	KEAP-1		4
Galougahi, K. K., et al.	2014	Glutathionylation mediates angiotensin II-induced eNOS uncoupling, amplifying NADPH oxidase-dependent endothelial dysfunction	eNOS		4; 7
Ehrmann, D. C., et al.	2014	Glutathionylated gammaG and gammaA subunits of hemoglobin F: a novel post-translational modification found in extremely premature infants by LC-MS and nanoLC-MS/MS	gammaG and gammaA subunits of Hgb F, beta subunit of Hgb A		1; 4
Donoso, P., et al.	2014	Stimulation of NOX2 in isolated hearts reversibly sensitizes RyR2 channels to activation by cytoplasmic calcium	RyR2		4; 7
Demasi, M., et al.	2014	20S proteasome activity is modified via S-glutathionylation based on intracellular redox status of the yeast Saccharomyces cerevisiae: implications for the degradation of oxidized proteins	alpha5-subunit of the 20S proteasome		5
De Pascali, F., et al.	2014	Hypoxia and reoxygenation induce endothelial nitric oxide synthase uncoupling in endothelial cells through tetrahydrobiopterin depletion and S-glutathionylation	eNOS		1; 4
Contreras-Ferrat, A., et al.	2014	Insulin elicits a ROS-activated and an IP(3)-dependent Ca(2)(+) release, which both impinge on GLUT4 translocation	RyR1		2; 7

Contreras-Ferrat, A., et al.	2014	Calcium signaling in insulin action on striated muscle	sarco-endoplasmic reticulum (SER) channels	*"Specifically, insulin activates the sarco-endoplasmic reticulum (SER) channels that release Ca(2+) into the cytosol i.e., the Ryanodine Receptor (RyR) and the inositol 1,4,5-triphosphate receptor (IP3R). In skeletal muscle cells, a rapid, insulin-triggered Ca(2+) release occurs through RyR, that is brought about upon S-glutathionylation of cysteine residues in the channel by reactive oxygen species (ROS) produced by the early activation of the NADPH oxidase (NOX2)."	7
Cianfruglia, L., et al.	2014	Glyoxalase II promotes "in vitro" S-glutathionylation	actin, malate dehydrogenase and GAPDH purified proteins		4
Chen, Y. J., et al.	2014	dbGSH: a database of S-glutathionylation	*As of January 31, 2014, dbGSH has manually collected >2200 experimentally verified S-glutathionylated peptides from 169 research articles using a text-mining approach.	dbGSH is now freely accessible at http://csb.cse.yzu.edu.tw/dbGSH/.	
Chen, H. J., et al.	2014	Multistage mass spectrometric analysis of human hemoglobin glutathionylation: correlation with cigarette smoking	hemoglobin		1; 4
Butturini, E., et al.	2014	S-Glutathionylation at Cys328 and Cys542 impairs STAT3 phosphorylation	Cys328 and Cys542 in STAT3		3; 6
Bonnaure, G., et al.	2014	N-acetyl cysteine regulates the phosphorylation of JAK proteins following CD40-activation of human memory B cells	STAT3		3; 6
Anathy, V., et al.	2014	Glutaredoxin-1 attenuates S-glutathionylation of the death receptor fas and decreases resolution of Pseudomonas aeruginosa pneumonia	Fas		3; 8
Alegre-Cebollada, J., et al.	2014	S-glutathionylation of cryptic cysteines enhances titin elasticity by blocking protein folding	titin		1; 5

Albino, A., et al.	2014	The cold-adapted gamma-glutamyl-cysteine ligase from the psychrophile Pseudoalteromonas haloplanktis	rPhGshA II on Cys 386		4
Zhou, S., et al.	2013	Functional interaction of glutathione S-transferase pi and peroxiredoxin 6 in intact cells	Prdx6		4
Zhang, L., et al.	2013	Oxidative modifications of mitochondria complex II	mitochondria complex II		2; 7
Zaffagnini, M., et al.	2013	Mechanisms of nitrosylation and denitrosylation of cytoplasmic glyceraldehyde-3-phosphate dehydrogenase from Arabidopsis thaliana	GAPDH		2; 7
Zaffagnini, M., et al.	2013	Plant cytoplasmic GAPDH: redox post-translational modifications and moonlighting properties	GAPDH		4
Takata, T., et al.	2013	90-kDa ribosomal S6 kinase 1 is inhibited by S-glutathionylation of its active-site cysteine residue during oxidative stress	RSK1 Cys223		7
Scotcher, J., et al.	2013	Unequivocal determination of site-specific protein disulfide bond reduction potentials by top-down FTICR MS: characterization of the N- and C-terminal redox-active sites in human thioredoxin 1	Trx1		5
Schwartz, J. J., et al.	2013	Amelioration of hepatic inflammation in a mouse model of NASH using a dithiocarbamate derivative	NF-kappaB		
Pfefferle, A., et al.	2013	Glutathionylation of UCP2 sensitizes drug resistant leukemia cells to chemotherapeutics	UCP2		1; 2; 7
Patil, N. K., et al.	2013	Effect of S-nitrosoglutathione on renal mitochondrial function: a new mechanism for reversible regulation of manganese superoxide dismutase activity?	MnSOD		4; 7
Patel, B. G., et al.	2013	Novel control of cardiac myofilament response to calcium by S-glutathionylation at specific sites of myosin binding protein C	myosin binding protein C		1; 7
Paranjpe, A., et al.	2013	Degradation of NF-kappaB, p53 and other regulatory redox-sensitive proteins by thiol-conjugating and -nitrosylating drugs in human tumor cells	p53		3; 6; 8
Pan, H., et al.	2013	Metabolism of bis(4-fluorobenzyl)trisulfide and its formation of hemoglobin adduct in rat erythrocytes	Hb		1
Oelze, M., etal.	2013	Chronic therapy with isosorbide-5-mononitrate causes endothelial dysfunction, oxidative stress, and a marked increase in vascular endothelin-1 expression	eNOS		
McLain, A. L., et al.	2013	Glutathionylation of alpha-ketoglutarate dehydrogenase: the chemical nature and relative susceptibility of the cofactor lipoic acid to modification	alpha-Ketoglutarate dehydrogenase (KGDH)		2; 7
McAlary, L., et al.	2013	Glutathionylation potentiates benign superoxide dismutase 1 variants to the toxic forms associated with amyotrophic lateral sclerosis	superoxide dismutase 1		4
Matrteyn, B., et al.	2013	The Synechocystis PCC6803 MerA-like enzyme operates in the reduction of both mercury and uranium under the control of the glutaredoxin 1 enzyme	MerA		4

Mailloux, R. J., et al.	2013	Glutaredoxin-2 is required to control proton leak through uncoupling protein-3	UCP3		1; 4
Liu, C. C., et al.	2013	Oxidative inhibition of the vascular Na+-K+ pump via NADPH oxidase-dependent beta1-subunit glutathionylation: implications for angiotensin II-induced vascular dysfunction	Na(+)-K(+) pump's beta1-subunit		1; 4
Liu, C. C., et al.	2013	Redox-dependent regulation of the Na(+)-K(+) pump: new twists to an old target for treatment of heart failure	Na(+)-K(+) pump molecular complex		1; 4
Lee, C. F., et al.	2013	Regulation of Monocyte Adhesion and Migration by Nox4	actin		4
Klaus, A., et al.	2013	Glutathione S-transferases interact with AMP-activated protein kinase: evidence for S-glutathionylation and activation in vitro	AMPK		3; 6
Kim, K., et al.	2013	Glutathione S-transferase omega suppresses the defective phenotypes caused by PINK1 loss-of-function in Drosophila	ATP synthase beta subunit in parkin or PINK1 mutants		3; 6
Jeong, E. M., et al.	2013	Tetrahydrobiopterin improves diastolic dysfunction by reversing changes in myofilament properties	myosin binding protein C (MyBP-C)		1
Iverson, S. V. et al.	2013	A Txnrd1-dependent metabolic switch alters hepatic lipogenesis, glycogen storage, and detoxification	NAPQI		2; 7
Hartmanova, T., et al.	2013	S-nitrosoglutathione covalently modifies cysteine residues of human carbonyl reductase 1 and affects its activity	Carbonyl reductase 1 (CBR1 or SDR21C1)		4; 7
Halloran, M., et al.	2013	The role of s-nitrosylation and s-glutathionylation of protein disulphide isomerase in protein misfolding and neurodegeneration	Protein disulphide isomerase (PDI)		5
Giangregorio, N., et al.	2013	Glutathione controls the redox state of the mitochondrial carnitine/acylcarnitine carrier Cys residues by glutathionylation	mitochondrial carnitine/acylcarnitine carrier (CAC)		2; 7
Garcia-Gimenez, J. L., et al.	2013	Histone h3 glutathionylation in proliferating mammalian cells destabilizes nucleosomal structure	Histone H3		1
Galougahi, K. K., et al.	2013	Protein kinase-dependent oxidative regulation of the cardiac Na+-K+ pump: evidence from in vivo and in vitro modulation of cell signalling	beta1 subunit		1; 6
Fuller, W., et al.	2013	Regulation of the cardiac sodium pump	Phospholemman		1
Du, Y., et al.	2013	Ambient ultrafine particles reduce endothelial nitric oxide production via S-glutathionylation of eNOS	eNOS		4
Dey, K., et al.	2013	Role of phospholemman and the 70 kDa inhibitor protein in regulating Na+/K+ ATPase activity in pulmonary artery smooth muscle cells under U46619 stimulation	Na(+)/K(+) ATPase		1
Demasi, M., et al.	2013	Redox regulation of the proteasome via S-glutathionylation	cysteine residues located in the alpha-rings		5
Del Giudice, R., et al.	2013	Human carbonic anhydrase VII protects cells from oxidative damage	Human carbonic anhydrase (hCA) VII		4; 7

Crabtree, M. J., et al.	2013	Integrated redox sensor and effector functions for tetrahydrobiopterin- and glutathionylation-dependent endothelial nitric-oxide synthase uncoupling	eNOS		4
Choong, G., et al.	2013	Cadmium-induced glutathionylation of actin occurs through a ROS-independent mechanism: implications for cytoskeletal integrity	actin		1
Chen, N. H., et al.	2013	A glutathione-dependent detoxification system is required for formaldehyde resistance and optimal survival of Neisseria meningitidis in biofilms	EstD		7
Chen, C. A., et al.	2013	Redox modulation of endothelial nitric oxide synthase by glutaredoxin-1 through reversible oxidative post-translational modification	eNOS		4
Butturini, E., et al.	2013	Mild oxidative stress induces S-glutathionylation of STAT3 and enhances chemosensitivity of tumoural cells to chemotherapeutic drugs	STAT3		3; 7
Brautigam, L., et al.	2013	Glutaredoxin regulates vascular development by reversible glutathionylation of sirtuin 1	sirtuin 1		7
Barros, S., et al.	2013	The redox state of cytochrome c modulates resistance to methotrexate in human MCF7 breast cancer cells	methotrexate		7; 8
Abdelsaid, M. A., et al.	2013	Thioredoxin-interacting protein expression is required for VEGF-mediated angiogenic signal in endothelial cells	LMW-PTP in HME cells.		4; 7
Zgheib, C., et al.	2012	Acyloxy nitroso compounds inhibit LIF signaling in endothelial cells and cardiac myocytes: evidence that STAT3 signaling is redox-sensitive	STAT3		3
Zaffagnini, M., et al.	2012	Glutaredoxin s12: unique properties for redox signaling	GrxS12		4
Zaffagnini, M., et al.	2012	Glutathionylation in the photosynthetic model organism Chlamydomonas reinhardtii: a proteomic survey	*four enzymes of this cycle, phosphoribulokinase, glyceraldehyde-3-phosphate dehydrogenase, ribose-5-phosphate isomerase, and phosphoglycerate kinase	*225 glutathionylated proteins in the eukaryotic unicellular green alga Chlamydomonas reinhardtii	2; 7
Yakushev, S., et al.	2012	Cross talk between S-nitrosylation and S-glutathionylation in control of the Na,K-ATPase regulation in hypoxic heart	catalytic alpha-subunit of the Na,K-ATPase		1; 4
Xiong, Y., et al.	2012	S-Glutathionylation of Protein Disulfide Isomerase Regulates Estrogen Receptor alpha Stability and Function	protein disulfide isomerase (PDI)		5
Ungerstedt, J., et al.	2012	In vivo redox state of human thioredoxin and redox shift by the histone deacetylase inhibitor suberoylanilide hydroxamic acid (SAHA)	cytosolic thioredoxin (Trx1)		4; 7
Ullevig, S., et al.	2012	NADPH oxidase 4 mediates monocyte priming and accelerated chemotaxis induced by metabolic stress	actin		4

Truppo, E., et al.	2012	Carbonic anhydrase VII is S-glutathionylated without loss of catalytic activity and affinity for sulfonamide inhibitors	hCA VII		7
Sun, R., et al.	2012	Oxidative stress induced S-glutathionylation and proteolytic degradation of mitochondrial thymidine kinase 2	mitochondrial thymidine kinase 2		2; 7
Stacey, M. M., et al.	2012	Protein thiol oxidation and formation of S-glutathionylated cyclophilin A in cells exposed to chloramines and hypochlorous acid	Cyclophilin A		1
Shi, W. W., et al.	2012	K(ATP) channel action in vascular tone regulation: from genetics to diseases	Kir6.1/SUR2B channel		1
Shahul, H. M., et al.	2012	The structure of the thioredoxin-triosephosphate isomerase complex provides insights into the reversible glutathione-mediated regulation of triosephosphate isomerase	triosephosphate isomerase.		2; 7
Sakai, J., et al.	2012	Reactive oxygen species-induced actin glutathionylation controls actin dynamics in neutrophils	actin		1
Rodriguez-Rocha, H., et al.	2012	Glutaredoxin 1 protects dopaminergic cells by increased protein glutathionylation in experimental Parkinson's disease	actin binding flightless-1 homolog protein (FLI-I) and the RalBP1-associated Eps domain-containing protein 2 (REPS2/POB1)		1; 4
Prakash, J., et al.	2012	Synthesis, characterization, and glutathionylation of cobalamin model complexes [Co(N4PyCO2Me)Cl]Cl2 and [Co(Bn-CDPy3)Cl]Cl2	Synthetic Co(III) complexes containing N5 donor sets		1; 2
Petrushanko, I. Y., et al.	2012	S-glutathionylation of the Na,K-ATPase catalytic alpha subunit is a determinant of the enzyme redox sensitivity	catalytic alpha subunit of Na,K-ATPase		1
Mollica, J. P., et al.	2012	S-glutathionylation of troponin I (fast) increases contractile apparatus Ca2+ sensitivity in fast-twitch muscle fibres of rats and humans	TnI(f), most probably at Cys133		1
Mitra, G., et al.	2012	Glutathionylation induced structural changes in oxy human hemoglobin analyzed by backbone amide hydrogen/deuterium exchange and MALDI-mass spectrometry	sickle hemoglobin, oxy hemoglobin		1
Mailloux, R. J., et al.	2012	Glutathionylation state of uncoupling protein-2 and the control of glucose-stimulated insulin secretion	UCP2		2; 7
Lushchak, V. I., et al.	2012	Glutathione homeostasis and functions: potential targets for medical interventions	sulfhydryls		
Lovelock, J. D., et al.	2012	Ranolazine improves cardiac diastolic dysfunction through modulation of myofilament calcium sensitivity	myosin binding protein C		1; 7
Lock, J. T., et al.	2012	Protein S-glutathionylation enhances Ca2+-induced Ca2+ release via the IP3 receptor in cultured aortic endothelial cells	IP(3)R(1)		7
Liu, C. C., et al.	2012	Susceptibility of beta1 Na+-K+ pump subunit to glutathionylation and oxidative inhibition depends on conformational state of pump	cysteine 46 of the beta1 subunit of the Na(+)-K(+) pump		1

Lin, Y. C., et al.	2012	The glutathionylation of p65 modulates NF-kappaB activity in 15-deoxy-Delta(1)(2),(1)(4)-prostaglandin J(2)-treated endothelial cells	p65		3; 6
Lai, E. Y., et al.	2012	Effects of the antioxidant drug tempol on renal oxygenation in mice with reduced renal mass	mitochondrial uncoupling protein 2 (UCP-2)		
Kim, S. G., et al.	2012	Redox, mutagenic and structural studies of the glutaredoxin/arsenate reductase couple from the cyanobacterium Synechocystis sp. PCC 6803	Glutaredoxin A		4
Kim, K., et al.	2012	Glutathione s-transferase omega 1 activity is sufficient to suppress neurodegeneration in a Drosophila model of Parkinson disease	ATP synthase beta subunit		1
Kim, H. S., et al.	2012	Redox regulation of MAPK phosphatase 1 controls monocyte migration and macrophage recruitment	MKP-1		3; 6
Kil, I. S., et al.	2012	S-glutathionylation regulates GTP-binding of Rac2	Cys(157) of Rac2		3
Kang, P. T., et al.	2012	Protein thiyl radical mediates S-glutathionylation of complex I	complex I		2; 7
Jin, X., et al.	2012	S-Glutathionylation underscores the modulation of the heteromeric Kir4.1-Kir5.1 channel in oxidative stress	heteromeric Kir4.1-Kir5.1 channel		1
Idigo, W. O., et al.	2012	Regulation of endothelial nitric-oxide synthase (NOS) S-glutathionylation by neuronal NOS: evidence of a functional interaction between myocardial constitutive NOS isoforms	eNOS		4
Grek, C. L., et al.	2012	S-glutathionylated serine proteinase inhibitors as plasma biomarkers in assessing response to redox-modulating drugs	serine proCys(256) of serpin A1 and Cys(263) of serpin A3teinase inhibitors		5; 6
Fismen, L., et al.	2012	Differential effects on nitric oxide synthase, heat shock proteins and glutathione in human endothelial cells exposed to heat stress and simulated diving	eNOS		5
Finn, N. A., et al.	2012	Pro-oxidant and antioxidant effects of N-acetylcysteine regulate doxorubicin-induced NF-kappa B activity in leukemic cells	IKK-beta		3
Falasca, P., et al.	2012	Properties of the endogenous components of the thioredoxin system in the psychrophilic eubacterium Pseudoalteromonas haloplanktis TAC 125	PhTrxR		4
Eligini, S., et al.	2012	Cytoskeletal architecture regulates cyclooxygenase-2 in human endothelial cells: autocrine modulation by prostacyclin	actin		7
Coles, S. J., et al.	2012	Differential redox potential between the human cytosolic and mitochondrial branched-chain aminotransferase	hBCAT		2; 7
Chen, W., et al.	2012	Microtubule S-glutathionylation as a potential approach for antimitotic agents	microtubule		1
Chae, H. Z., et al.	2012	Protein glutathionylation in the regulation of peroxiredoxins: a family of thiol-specific peroxidases that function as antioxidants, molecular chaperones, and signal modulators	Prx I at Cys(83)		4

Bedhomme, M., et al.	2012	Glutathionylation of cytosolic glyceraldehyde-3-phosphate dehydrogenase from the model plant Arabidopsis thaliana is reversed by both glutaredoxins and thioredoxins in vitro	GAPDH		4; 7
Armeni, T., et al.	2012	Cellular redox imbalance and changes of protein S-glutathionylation patterns are associated with senescence induced by oncogenic H-ras	GAPDH		3; 8
Anathy, V., et al.	2012	Oxidative processing of latent Fas in the endoplasmic reticulum controls the strength of apoptosis	Fas		3; 8
Alkaitis, M. S., et al.	2012	Recoupling the cardiac nitric oxide synthases: tetrahydrobiopterin synthesis and recycling	NOS		1
Alisi, A., et al.	2012	Redox homeostasis and posttranslational modifications/activity of phosphatase and tensin homolog in hepatocytes from rats with diet-induced hepatosteatosis	phosphatase and tensin homolog (PTEN)		5
Agarwal, A. R., et al.	2012	Short-term cigarette smoke exposure induces reversible changes in energy metabolism and cellular redox status independent of inflammatory responses in mouse lungs	GAPDH		2
Abdelsaid, M. A., et al.	2012	S-glutathionylation of LMW-PTP regulates VEGF-mediated FAK activation and endothelial cell migration	low molecular weight protein tyrosine phosphatase (LMW-PTP)		5; 6
Zweire, J. L., et al.	2011	S-glutathionylation reshapes our understanding of endothelial nitric oxide synthase uncoupling and nitric oxide/reactive oxygen species-mediated signaling	eNOS		4
Yang, Y., et al.	2011	Molecular basis and structural insight of vascular K(ATP) channel gating by S-glutathionylation	ATP-sensitive K(+) (K(ATP)) channel		1
Yang, J., et al.	2011	Metabolism of gambogic acid in rats: a rare intestinal metabolic pathway responsible for its final disposition	Yang, Y., et al.		
Wu, H., et al.	2011	Glutaredoxin 2 knockout increases sensitivity to oxidative stress in mouse lens epithelial cells	75-kDa subunit of complex I.		1; 4
Wang, S. B., et al.	2011	Redox regulation of mitochondrial ATP synthase: implications for cardiac resynchronization therapy	ATP synthase alpha subunit		2; 7
van der Linde, K., et al.	2011	Regulation of plant cytosolic aldolase functions by redox-modifications	At2g36460		7
Uys, J. D., et al.	2011	Nitrosative stress-induced S-glutathionylation of protein disulfide isomerase	protein disulfide isomerase		5
Tang, H., et al.	2011	Ca(v)1.2 calcium channel is glutathionylated during oxidative stress in guinea pig and ischemic human heart	alpha(1C) subunit (Ca(v)1.2) channel protein		7
Takata, T., et al.	2011	Calcium/calmodulin-dependent protein kinases as potential targets of nitric oxide	CaM kinase I at Cys(179)		7
Staab, C. A., et al.	2011	Studies on reduction of S-nitrosoglutathione by human carbonyl reductases 1 and 3	CBR1		7
Seidel, P., et al.	2011	IkappaBalpha glutathionylation and reduced histone H3 phosphorylation inhibit eotaxin and RANTES	IkappaBalpha		3

Schuhmacher, S., et al.	2011	Vascular dysfunction in experimental diabetes is improved by pentaerithrityl tetranitrate but not isosorbide-5-mononitrate therapy	eNOS		
Sanchez, G., et al.	2011	Preconditioning tachycardia decreases the activity of the mitochondrial permeability transition pore in the dog heart	cyclophilin-D		1; 2
Redler, R. L., et al.	2011	Glutathionylation at Cys-111 induces dissociation of wild type and FALS mutant SOD1 dimers	cytosolic enzyme Cu/Zn superoxide dismutase (SOD1)		4
Proctor, E. A., et al.	2011	Structural and thermodynamic effects of post-translational modifications in mutant and wild type Cu, Zn superoxide dismutase	Cu,Zn superoxide dismutase (SOD1)		4
Park, J. W., et al.	2011	Glutathionylation of peroxiredoxin I induces decamer to dimers dissociation with concomitant loss of chaperone activity	peroxiredoxin I		5
Mitra, G., et al.	2011	Structural perturbation of human hemoglobin on glutathionylation probed by hydrogen-deuterium exchange and MALDI mass spectrometry	deoxyhemoglobin		1
McLain, A. L., et al.	2011	alpha-Ketoglutarate dehydrogenase: a mitochondrial redox sensor	alpha-Ketoglutarate dehydrogenase		2; 7
McDonagh, B., et al.	2011	Thiol redox proteomics identifies differential targets of cytosolic and mitochondrial glutaredoxin-2 isoforms in Saccharomyces cerevisiae. Reversible S-glutathionylation of DHBP synthase (RIB3)	DHBP synthase (RIB3)		2; 7
Mailloux, R. J., et al.	2011	Glutathionylation acts as a control switch for uncoupling proteins UCP2 and UCP3	mitochondrial uncoupling proteins 2 and 3 (UCP2 and -3)		2; 7
Mailloux, R. J., et al.	2011	Uncoupling proteins and the control of mitochondrial reactive oxygen species production	mitochondrial uncoupling proteins 2 and 3 (UCP2 and -3)		2; 7
Lock, J. T., et al.	2011	Effect of protein S-glutathionylation on Ca2+ homeostasis in cultured aortic endothelial cells	Ca2+		7
Lo Conte, M., et al.	2011	Exhaustive glycosylation, PEGylation, and glutathionylation of a [G4]-ene(48) dendrimer via photoinduced thiol-ene coupling	[G4]-ene(48) dendrimer		1
Kim, Y. J., et al.	2011	S-glutathionylation of cysteine 99 in the APE1 protein impairs abasic endonuclease activity	Cys99 in human APE1		7
Khan, S. A., et al.	2011	NADPH oxidase 2 mediates intermittent hypoxia-induced mitochondrial complex I inhibition: relevance to blood pressure changes in rats	75- and 50-kDa proteins of the complex I		2; 4
Jortzik, E., et al.	2011	Glucose-6-phosphate dehydrogenase-6-phosphogluconolactonase: a unique bifunctional enzyme from Plasmodium falciparum	PfGluPho		2; 7
Johansson, C., et al.	2011	The crystal structure of human GLRX5: iron-sulfur cluster co-ordination, tetrameric assembly and monomer activity	GLRX5		4
Hafner, A. K., et al.	2011	Dimerization of human 5-lipoxygenase	Human 5-lipoxygenase (5-LO)		7
Guevara-Flores, A., et al.	2011	Hysteresis in thioredoxin-glutathione reductase (TGR) from the adult stage of the liver fluke Fasciola hepatica	Thioredoxin-glutathione reductase (TGR)		4

Gonzalez-Dosal, R., et al.	2011	HSV infection induces production of ROS, which potentiate signaling from pattern recognition receptors: role for S-glutathionylation of TRAF3 and 6	TRAF3 and 6		3
Duan, D. D., et al.	2011	A molecular switch of "yin and yang": S-glutathionylation of eNOS turns off NO synthesis and turns on superoxide generation	eNOS		4
Donoso, P., et al.	2011	Modulation of cardiac ryanodine receptor activity by ROS and RNS	RyR2		2; 7
Daubner, S. C., et al.	2011	Tyrosine hydroxylase and regulation of dopamine synthesis	TyrH		7
Cordes, C. M., et al.	2011	Redox regulation of insulin degradation by insulin-degrading enzyme	Insulin-degrading enzyme (IDE)		2; 7
Chi, B. K., et al.	2011	S-bacillithiolation protects against hypochlorite stress in Bacillus subtilis as revealed by transcriptomics and redox proteomics	MetE		
Butturini, E., et al.	2011	Two naturally occurring terpenes, dehydrocostuslactone and costunolide, decrease intracellular GSH content and inhibit STAT3 activation	STAT3		3
Bibert, S., et al.	2011	FXYD proteins reverse inhibition of the Na+-K+ pump mediated by glutathionylation of its beta1 subunit	Na+-K+ pump beta1 subunit		1
Basavarajappa, D. K., et al.	2011	Phosphorylated Grb14 is an endogenous inhibitor of retinal protein tyrosine phosphatase 1B, and light-dependent activation of Src phosphorylates Grb14	PTP1B		6
Aesif, S. W., et al.	2011	Activation of the glutaredoxin-1 gene by nuclear factor kappaB enhances signaling	nuclear factor kappaB (NF-kappaB)		3
Zmijewski, J. W., et al.	2010	Exposure to hydrogen peroxide induces oxidation and activation of AMP-activated protein kinase	AMPKalpha and AMPKbeta subunits		6
Zhang, X., et al.	2010	PYDDT, a novel phase 2 enzymes inducer, activates Keap1-Nrf2 pathway via depleting the cellular level of glutathione	Keap1		4
Yusuf, M. A., et al.	2010	Cys-141 glutathionylation of human p53: Studies using specific polyclonal antibodies in cancer samples and cell lines	p53 at Cys- 141		8
Yap, L. P., et al.	2010	Role of nitric oxide-mediated glutathionylation in neuronal function: potential regulation of energy utilization	GAPDH		2; 4
Yang, Y., et al.	2010	Oxidative stress inhibits vascular K(ATP) channels by S-glutathionylation	vascular K(ATP) channel		1
Tuna, G., et al.	2010	Inhibition characteristics of hypericin on rat small intestine glutathione-S-transferases	GST-pi		7
Singleton, W. C., et al.	2010	Role of glutaredoxin1 and glutathione in regulating the activity of the copper-transporting P-type ATPases, ATP7A and ATP7B	Cu-ATPases		

Queiroga, C. S., et al.	2010	Glutathionylation of adenine nucleotide translocase induced by carbon monoxide prevents mitochondrial membrane permeabilization and apoptosis	ANT		2; 8
Pedrajas, J. R., et al.	2010	Glutaredoxin participates in the reduction of peroxides by the mitochondrial 1-CYS peroxiredoxin in Saccharomyces cerevisiae	dimeric Prx1p		4
Passarelli, C., et al.	2010	GSSG-mediated Complex I defect in isolated cardiac mitochondria	Complex I		2
Passarelli, C., et al.	2010	Susceptibility of isolated myofibrils to in vitro glutathionylation: Potential relevance to muscle functions	alpha-actin		1
Palmieri, M. C., et al.	2010	Regulation of plant glycine decarboxylase by s-nitrosylation and glutathionylation	plant glycine decarboxylase		7
Merry, T. L., et al.	2010	Local hindlimb antioxidant infusion does not affect muscle glucose uptake during in situ contractions in rat	AMPK		2
Manevich, Y., et al.	2010	Diazeniumdiolate mediated nitrosative stress alters nitric oxide homeostasis through intracellular calcium and S-glutathionylation of nitric oxide synthetase	nitric oxide synthetase		1; 7
Lim, S. Y., et al.	2010	S-glutathionylation regulates inflammatory activities of S100A9	S100A9 (A9)		7
Liao, B. C., et al.	2010	The glutaredoxin/glutathione system modulates NF-kappaB activity by glutathionylation of p65 in cinnamaldehyde-treated endothelial cells	p65		3
Lian, K. C., et al.	2010	Dual mechanisms of NF-kappaB inhibition in carnosol-treated endothelial cells	p65		3
Kambe, T., et al.	2010	Inactivation of Ca2+/calmodulin-dependent protein kinase I by S-glutathionylation of the active-site cysteine residue	Ca(2+)/calmodulin(CaM)-dependent protein kinase I (CaMKI)		6; 7
Iversen, R., et al.	2010	Thiol-disulfide exchange between glutaredoxin and glutathione	glutaredoxin		4
Huttenhain, R., et al.	2010	A combined top-down and bottom-up MS approach for the characterization of hemoglobin variants in Rhesus monkeys	gamma1 and gamma2		1
Hawkins, B. J., et al.	2010	S-glutathionylation activates STIM1 and alters mitochondrial homeostasis	STIM1		2; 7
Garcia, J., et al.	2010	Regulation of mitochondrial glutathione redox status and protein glutathionylation by respiratory substrates	succinyl-CoA transferase and ATP synthase (F(1) complex, alpha-subunit)		2; 7
Dixon, D. P., et al.	2010	Roles for stress-inducible lambda glutathione transferases in flavonoid metabolism in plants as identified by ligand fishing	wheat enzyme TaGSTL1		4
Cyrne, L., et al.	2010	Glyceraldehyde-3-phosphate dehydrogenase is largely unresponsive to low regulatory levels of hydrogen peroxide in Saccharomyces cerevisiae	GAPDH		2; 7

Colombo, G., et al.	2010	Cellular redox potential and hemoglobin S-glutathionylation in human and rat erythrocytes: A comparative study	hemoglobin		1; 4
Chunch, S., et al.	2010	Glutaredoxin 1 regulates cigarette smoke-mediated lung inflammation through differential modulation of I{kappa}B kinases in mice: impact on histone acetylation	IkappaB kinase (IKK)		3
Chen, J., et al.	2010	Peptide-based antibodies against glutathione-binding domains suppress superoxide production mediated by mitochondrial complex I	complex I		2; 4
Chen, C. A., et al.	2010	S-glutathionylation uncouples eNOS and regulates its cellular and vascular function	eNOS		4
Chantzoura, E., et al.	2010	Glutaredoxin-1 regulates TRAF6 activation and the IL-1 receptor/TLR4 signalling	TRAF6		3; 4
Bundgaard, H., et al.	2010	beta(3) adrenergic stimulation of the cardiac Na+-K+ pump by reversal of an inhibitory oxidative modification	myocardial beta(1) pump subunit		1
Birkenmeier, G., et al.	2010	Posttranslational modification of human glyoxalase 1 indicates redox-dependent regulation	Glo1		4
Zmijewski, J. W., et al.	2009	S-glutathionylation of the Rpn2 regulatory subunit inhibits 26 S proteasomal function	Rpn1 and Rpn2, which are subunits of the 19 S regulatory particle		5
Xie, Y., et al.	2009	S-glutathionylation impairs signal transducer and activator of transcription 3 activation and signaling	STAT3		3
Woodi, M., et al.	2009	Analysis of protein posttranslational modifications by mass spectrometry: With special reference to haemoglobin	hemoglobin		1
Wilcox, K. C., et al.	2009	Modifications of superoxide dismutase (SOD1) in human erythrocytes: a possible role in amyotrophic lateral sclerosis	SOD1		4
Townsend, D. M., et al.	2009	Nitrosative stress-induced s-glutathionylation of protein disulfide isomerase leads to activation of the unfolded protein response	PDI		5
Townsend, D. M., et al.	2009	Novel role for glutathione S-transferase pi. Regulator of protein S-Glutathionylation following oxidative and nitrosative stress	GSTpi		4
Shin, S. W., et al.	2009	Glutathionylation regulates cytosolic NADP+-dependent isocitrate dehydrogenase activity	Cys269 of IDPc		4; 7
Shelton, M. D., et al.	2009	Glutaredoxin regulates autocrine and paracrine proinflammatory responses in retinal glial (muller) cells	IKKbeta		4
Regazzoni, L., et al.	2009	Hemoglobin glutathionylation can occur through cysteine sulfenic acid intermediate: electrospray ionization LTQ-Orbitrap hybrid mass spectrometry studies	Hb		1
Pizarro, G. O., et al.	2009	Impact of actin glutathionylation on the actomyosin-S1 ATPase	actin		1
Park, J. W., et al.	2009	Deglutathionylation of 2-Cys peroxiredoxin is specifically catalyzed by sulfiredoxin	actin, 2-Cys Prxs		4

Park, H. A., et al.	2009	Glutathione disulfide induces neural cell death via a 12-lipoxygenase pathway	12-Lox		4
Naoi, M., et al.	2009	Glutathione redox status in mitochondria and cytoplasm differentially and sequentially activates apoptosis cascade in dopamine-melanin-treated SH-SY5Y cells	complex I		4; 8
Mueller, A. S., et al.	2009	Regulation of the insulin antagonistic protein tyrosine phosphatase 1B by dietary Se studied in growing rats	PTP1B		6
Leferink, N. G., et al.	2009	Galactonolactone dehydrogenase requires a redox-sensitive thiol for optimal production of vitamin C	GALDH		7
Lee, E., et al.	2009	Multiple functions of Nm23-H1 are regulated by oxido-reduction system	Cys109 in Nm23-H1		6
Konstantinidis, D., et al.	2009	The ambiguous role of the Na+-H+ exchanger isoform 1 (NHE1) in leptin-induced oxidative stress in human monocytes	NHE1-bound heat shock protein 70 kDa (Hsp70)		1
Konopka-Postupolska, D., et al.	2009	The role of annexin 1 in drought stress in Arabidopsis	AnnAt1		1
Hossain, Q. S., et al.	2009	Contribution of liver mitochondrial membrane-bound glutathione transferase to mitochondrial permeability transition pores	mtMGST1		4; 7
Greetham, D., et al.	2009	Antioxidant activity of the yeast mitochondrial one-Cys peroxiredoxin is dependent on thioredoxin reductase and glutathione in vivo	1-Cys Prx1		4
Go, Y. M., et al.	2009	Quantification of redox conditions in the nucleus	TrxR1		4
Figtree, G. A., et al.	2009	Reversible oxidative modification: a key mechanism of Na+-K+ pump regulation	Na(+)-K(+) ATPase beta(1) subunit		1
Di Domenico, F., et al.	2009	Glutathionylation of the pro-apoptotic protein p53 in Alzheimer's disease brain: implications for AD pathogenesis	p53		3; 8
Dailanis, S., et al.	2009	The role of signalling molecules on actin glutathionylation and protein carbonylation induced by cadmium in haemocytes of mussel Mytilus galloprovincialis (Lmk)	actin		3
Coles, S. J., et al.	2009	S-Nitrosoglutathione inactivation of the mitochondrial and cytosolic BCAT proteins: S-nitrosation and S-thiolation	hBCATc		2; 7
Bedhomme, M., et al.	2009	Regulation by glutathionylation of isocitrate lyase from Chlamydomonas reinhardtii	isocitrate lyase from Chlamydomonas reinhardtii		7
Anathy, V., et al.	2009	Redox amplification of apoptosis by caspase-dependent cleavage of glutaredoxin 1 and S-glutathionylation of Fas	Fas		3; 8
Alisi, A., et al.	2009	Glutathionylation of p65NF-kappaB correlates with proliferating/apoptotic hepatoma cells exposed to pro- and anti-oxidants	p65NF-kappaB		3; 8
Townsend, D. M., et al.	2008	NOV-002, a glutathione disulfide mimetic, as a modulator of cellular redox balance	actin		4
Silva, G. M., et al.	2008	Role of glutaredoxin 2 and cytosolic thioredoxins in cysteinyl-based redox modification of the 20S proteasome	yeast 20S proteasome		5

Shi, Q., et al.	2008	Novel functions of the alpha-ketoglutarate dehydrogenase complex may mediate diverse oxidant-induced changes in mitochondrial enzymes associated with Alzheimer's disease	KGDHC		7
Sanchez, G., et al.	2008	Exercise and tachycardia increase NADPH oxidase and ryanodine receptor-2 activity: possible role in cardioprotection	RyR2		4; 7
Rodriguez-Pascal, F., et al.	2008	Glyceraldehyde-3-phosphate dehydrogenase regulates endothelin-1 expression by a novel, redox-sensitive mechanism involving mRNA stability	catalytically active residue Cys 152		4; 7
Prinarakis, E., et al.	2008	S-glutathionylation of IRF3 regulates IRF3-CBP interaction and activation of the IFN beta pathway	IRF3		3
Mueller, A. S., et al.	2008	Redox regulation of protein tyrosine phosphatase 1B by manipulation of dietary selenium affects the triglyceride concentration in rat liver	PTP1B		6
Michelet, L., et al.	2008	In vivo targets of S-thiolation in Chlamydomonas reinhardtii	HSP70B		
Meissner, F., et al.	2008	Superoxide dismutase 1 regulates caspase-1 and endotoxic shock	SOD1		4
Liu, S. Y>, et al.	2008	Ligand binding of leukocyte integrin very late antigen-4 involves exposure of sulfhydryl groups and is subject to redox modulation	alpha4 peptide		1
Kil, I. S., et al.	2008	Glutathionylation regulates IkappaB	IkappaB		3
Hurd, T. R., et al.	2008	Complex I within oxidatively stressed bovine heart mitochondria is glutathionylated on Cys-531 and Cys-704 of the 75-kDa subunit: potential role of CYS residues in decreasing oxidative damage	Complex I		2
Huang, Z., et al.	2008	Inhibition of caspase-3 activity and activation by protein glutathionylation	Caspase-3		8
Holland, R., et al.	2008	Prospective type 1 and type 2 disulfides of Keap1 protein	Keap1		4
Demasi, M., et al.	2008	Oligomerization of the cysteinyl-rich oligopeptidase EP24.15 is triggered by S-glutathionylation	EP24.15		7
Corona, B. T., et al.	2008	Eccentric contractions do not induce rhabdomyolysis in malignant hyperthermia susceptible mice	RYR1		
Conway, M. E., et al.	2008	Regulatory control of human cytosolic branched-chain aminotransferase by oxidation and S-glutathionylation and its interactions with redox sensitive neuronal proteins	hBCATc		7
Coduttin, L., et al.	2008	The solution structure of DNA-free Pax-8 paired box domain accounts for redox regulation of transcriptional activity in the pax protein family	Pax-8		3
Chen, C. L., et al.	2008	Protein tyrosine nitration of the flavin subunit is associated with oxidative modification of mitochondrial complex II in the post-ischemic myocardium	70-kDa flavin		7

Castellano, I., et al.	2008	Glutathionylation of the iron superoxide dismutase from the psychrophilic eubacterium Pseudoalteromonas haloplanktis	iron superoxide dismutase from the psychrophilic eubacterium Pseudoalteromonas haloplanktis		4
Casadei, M., et al.	2008	S-glutathionylation of metallothioneins by nitrosative/oxidative stress	MT		4
Bull, R., et al.	2008	Ischemia enhances activation by Ca2+ and redox modification of ryanodine receptor channels from rat brain cortex	RyR2		7
Applegate, M. A., et al.	2008	Reversible inhibition of alpha-ketoglutarate dehydrogenase by hydrogen peroxide: glutathionylation and protection of lipoic acid	lpha-ketoglutarate dehydrogenase		7
Zaffagnini, M., et al.	2007	The thioredoxin-independent isoform of chloroplastic glyceraldehyde-3-phosphate dehydrogenase is selectively regulated by glutathionylation	GAPDH		7
Velu, C. S., et al.	2007	Human p53 is inhibited by glutathionylation of cysteines present in the proximal DNA-binding domain during oxidative stress	p53		3; 8
Qanungo, S., et al.	2007	Glutathione supplementation potentiates hypoxic apoptosis by S-glutathionylation of p65-NFkappaB	p65-NFkappaB		3
Niwa, T., et al.	2007	Protein glutathionylation and oxidative stress	Hb		
Newman, S. F., et al.	2007	An increase in S-glutathionylated proteins in the Alzheimer's disease inferior parietal lobule, a proteomics approach	(GAPDH), and alpha-enolase		1
Mukherjee, T. K., et al.	2007	High concentration of antioxidants N-acetylcysteine and mitoquinone-Q induces intercellular adhesion molecule 1 and oxidative stress by increasing intracellular glutathione	IKK		3
Melchers, J., et al.	2007	Glutathionylation of trypanosomal thiol redox proteins	T. brucei thioredoxin		4
Leonberg, A. K., et al.	2007	The functional role of cysteine residues for c-Abl kinase activity	c-Abl		3; 6
Johansson, M., et al.	2007	Glutathionylation of beta-actin via a cysteinyl sulfenic acid intermediary	beta-actin		1
Huang, K. P. et al.	2007	Modification of protein by disulfide S-monoxide and disulfide S-dioxide: distinctive effects on PKC	GS-DSDO-treated kinase		6
Cruz, C. M., et al.	2007	ATP activates a reactive oxygen species-dependent oxidative stress response and secretion of proinflammatory cytokines in macrophages	PTEN		3
Chen, Y. R., et al.	2007	Mitochondrial complex II in the post-ischemic heart: oxidative injury and the role of protein S-glutathionylation	70-kDa FAD-binding subunit of SQR		2
Townsend, D. M., et al.	2006	A glutathione S-transferase pi-activated prodrug causes kinase activation concurrent with S-glutathionylation of proteins	PTP1B		6
Rozenberg, O., et al	2006	S-Glutathionylation regulates HDL-associated paraoxonase 1 (PON1) activity	PON1		4; 7

Rossi, R., et al.	2006	Membrane skeletal protein S-glutathionylation and hemolysis in human red blood cells	protein 4.2 and spectrin		1
Rinnerthaler, M., et al.	2006	MMI1 (YKL056c, TMA19), the yeast orthologue of the translationally controlled tumor protein (TCTP) has apoptotic functions and interacts with both microtubules and mitochondria	Mmi1p		1; 8
Rinna, A., et al.	2006	Stimulation of the alveolar macrophage respiratory burst by ADP causes selective glutathionylation of protein tyrosine phosphatase 1B	protein tyrosine phosphatase 1B		6
Reynaert, N. L., et al.	2006	Dynamic redox control of NF-kappaB through glutaredoxin-regulated S-glutathionylation of inhibitory kappaB kinase beta	kappaB kinase beta		3
Ralat, L. A., et al.	2006	Direct evidence for the formation of a complex between 1-cysteine peroxiredoxin and glutathione S-transferase pi with activity changes in both enzymes	1-Cys Prx		4
Okouchi, M., et al.	2006	NRF2-dependent glutamate-L-cysteine ligase catalytic subunit expression mediates insulin protection against hyperglycemia- induced brain endothelial cell apoptosis	actin/Keap-1		4
Noguera-Mazon, V., et al.	2006	Glutathionylation induces the dissociation of 1-Cys D-peroxiredoxin non-covalent homodimer	1-Cys D-Prx		4
Hong, Y. J., et al.	2006	Identification of glutathione-related quercetin metabolites in humans	quercetin		
Hidalgo, C., et al.	2006	A transverse tubule NADPH oxidase activity stimulates calcium release from isolated triads via ryanodine receptor type 1 S -glutathionylation	ryanodine receptor type 1		2; 7
Haendeler, J., et al.	2006	Thioredoxin-1 and posttranslational modifications	thioredoxin-1		4
Ghezzi, P., et al.	2006	Redox regulation of cyclophilin A by glutathionylation	cyclophilin A		7
Fiaschi, T., et al.	2006	Redox regulation of beta-actin during integrin-mediated cell adhesion	actin		1
Chen, F. C., et al.	2006	Decline of contractility during ischemia-reperfusion injury: actin glutathionylation and its effect on allosteric interaction with tropomyosin	actin		1
Allina, J., et al.	2006	T cell targeting and phagocytosis of apoptotic biliary epithelial cells in primary biliary cirrhosis	lipoyllysine residues		
Sanchez, G., et al.	2005	Tachycardia increases NADPH oxidase activity and RyR2 S-glutathionylation in ventricular muscle	RyR2		7
Salsman, S. J., et al.	2005	Sensitivity of protein tyrosine phosphatase activity to the redox environment, cytochrome C, and microperoxidase	PTP1B		6
Michelet, L., et al.	2005	Glutathionylation of chloroplast thioredoxin f is a redox signaling mechanism in plants	chloroplast thioredoxin f		4
McDonagh, B., et al.	2005	Carbonylation and glutathionylation of proteins in the blue mussel Mytilus edulis detected by proteomic analysis and Western blotting: Actin as a target for oxidative stress	Actin		1

Manevich, Y., et al.	2005	Peroxiredoxin 6, a 1-Cys peroxiredoxin, functions in antioxidant defense and lung phospholipid metabolism	Peroxiredoxin 6 (Prdx6)		4
Kim, G., et al.	2005	Molecular determinants of S-glutathionylation of carbonic anhydrase 3	Carbonic anhydrase 3		7
Kil, I. S., et al.	2005	Regulation of mitochondrial NADP+-dependent isocitrate dehydrogenase activity by glutathionylation	mitochondrial NADP(+)-dependent isocitrate dehydrogenase (IDPm)		7
Humphries, K. M., et al.	2005	Enhanced dephosphorylation of cAMP-dependent protein kinase by oxidation and thiol modification	catalytic subunit of cAMP-dependent protein kinase (PKA)		6
Hidalgo, C.	2005	Cross talk between Ca2+ and redox signalling cascades in muscle and neurons through the combined activation of ryanodine receptors/Ca2+ release channels	RyR cysteines		7
Han, D., et al.	2005	Sites and mechanisms of aconitase inactivation by peroxynitrite: modulation by citrate and glutathione	Aconitases		7
Hammell-Pamment, Y., et al.	2005	Determination of site-specificity of S-glutathionylated cellular proteins	gamma-actin (Cys(217)), heat shock protein 60 (Cys(447)), and elongation factor 1-alpha-1 (Cys(411))		1; 5
Goch, G., et al.	2005	Affinity of S100A1 protein for calcium increases dramatically upon glutathionylation	S100A1		7
Giustarini, D., et al.	2005	S-nitrosation versus S-glutathionylation of protein sulfhydryl groups by S-nitrosoglutathione	papain, creatine phosphokinase, glyceraldehyde-3-phosphate dehydrogenase, alcohol dehydrogenase, bovine serum albumin, and actin		1; 2; 7
Fung, E. T., et al.	2005	Classification of cancer types by measuring variants of host response proteins using SELDI serum assays	transthyretin and inter-alpha trypsin inhibitor heavy chain 4 (ITIH4)		
Fernandes, A. P., et al.	2005	A novel monothiol glutaredoxin (Grx4) from Escherichia coli can serve as a substrate for thioredoxin reductase	glutaredoxin 4 (Grx4)		4
Dixon, D. P., et al.	2005	Stress-induced protein S-glutathionylation in Arabidopsis	dehydroascorbate reductase (AtDHAR1), zeta-class glutathione transferase (AtGSTZ1), nitrilase (AtNit1), alcohol dehydrogenase (AtADH1), and methionine synthase (AtMetS)		4; 7
Dixon, D. P., et al.	2005	Redox regulation of a soybean tyrosine-specific protein phosphatase	GmPTP		6
Dinoto, L., et al.	2005	Structural insights into Alzheimer filament assembly pathways based on site-directed mutagenesis and S-glutathionylation of three-repeat neuronal Tau protein	three-repeat neuronal Tau protein		1
Cao, X., et al.	2005	Glutathionylation of two cysteine residues in paired domain regulates DNA binding activity of Pax-8	Pax-8		3
Asmis, R., et al.	2005	A novel thiol oxidation-based mechanism for adriamycin-induced cell injury in human macrophages	human monocyte-derived macrophages		

Aracena, P., et al.	2005	Effects of S-glutathionylation and S-nitrosylation on calmodulin binding to triads and FKBP12 binding to type 1 calcium release channels	ryanodine receptor type 1 (RyR1) Ca2+ release channels		7
Zhukova, L., et al.	2004	Redox modifications of the C-terminal cysteine residue cause structural changes in S100A1 and S100B proteins	S100A1 and S100B		7
Mawatari, S., et al.	2004	Different types of glutathionylation of hemoglobin can exist in intact erythrocytes	hemoglobin		1
Mao, T. K., et al.	2004	Sidechain biology and the immunogenicity of PDC-E2, the major autoantigen of primary biliary cirrhosis	mitochondrial pyruvate dehydrogenase complex (PDC-E2)		2; 7
Manevich, Y., et al.	2004	Activation of the antioxidant enzyme 1-CYS peroxiredoxin requires glutathionylation mediated by heterodimerization with pi GST	the oxidized catalytic cysteine of 1-cysPrx		4
Landino, L. M., et al.	2004	Modulation of the redox state of tubulin by the glutathione/glutaredoxin reductase system	tubulin		4
Jarry, A., et al.	2004	Position in cell cycle controls the sensitivity of colon cancer cells to nitric oxide-dependent programmed cell death	actin		1; 8
Hoppe, G., et al.	2004	Protein s-glutathionylation in retinal pigment epithelium converts heat shock protein 70 to an active chaperone	70 kDa protein, Hsc70		5
Hondorp, E. R., et al.	2004	Oxidative stress inactivates cobalamin-independent methionine synthase (MetE) in Escherichia coli	MetE		7
Cross, J. V., et al.	2004	Oxidative stress inhibits MEKK1 by site-specific glutathionylation in the ATP-binding domain	MEKK1		3; 6
Craghill, J., et al.	2004	The identification of a reaction site of glutathione mixed-disulphide formation on gammaS-crystallin in human lens	47 kDa		1; 5
Caplan, J. F., et al.	2004	Regulation of annexin A2 by reversible glutathionylation	annexin A2		1
Beer, S. M., et al.	2004	Glutaredoxin 2 catalyzes the reversible oxidation and glutathionylation of mitochondrial membrane thiol proteins: implications for mitochondrial redox regulation and antioxidant DEFENSE	Complex I		2; 4
Anselmo, A. N., et al.	2004	Protein kinase function and glutathionylation	MEKK1 [MAP (mitogen-activated protein kinase)/ERK (extracellular-signal-regulated kinase) kinase kinase; MAP3K]		6
Taylor, E. R., et al.	2003	Reversible glutathionylation of complex I increases mitochondrial superoxide formation	complex I		2
Starke, D. W., et al.	2003	Glutathione-thiyl radical scavenging and transferase properties of human glutaredoxin (thioltransferase). Potential role in redox signal transduction	glyceraldehyde-3-phosphate dehydrogenase		4; 7
Pauwels, F., et al.	2003	Purification and characterization of a chimeric enzyme from Haemophilus influenzae Rd that exhibits glutathione-dependent peroxidase activity	H. influenzae protein, denoted here as PGdx		4
Pastore, A., et al.	2003	Actin glutathionylation increases in fibroblasts of patients with Friedreich's ataxia: a potential role in the pathogenesis of the disease	Actin		1

Nulton-Persson, A. C., et al.	2003	Reversible inactivation of alpha-ketoglutarate dehydrogenase in response to alterations in the mitochondrial glutathione status	KGDH		7
Lillig, C. H., et al.	2003	Redox regulation of 3'-phosphoadenylylsulfate reductase from Escherichia coli by glutathione and glutaredoxins	PAPS reductase		4; 7
Kopperud, R., et al.	2003	cAMP effector mechanisms. Novel twists for an 'old' signaling system	cAPK		6
Ito, H., et al.	2003	The sugar-metabolic enzymes aldolase and triose-phosphate isomerase are targets of glutathionylation in Arabidopsis thaliana: detection using biotinylated glutathione	triose-phosphate isomerase (TPI)		7
Fratelli, M., et al.	2003	Identification of proteins undergoing glutathionylation in oxidatively stressed hepatocytes and hepatoma cells	actin, nucleophosmin, phosphogluconolactonase, myosin, profilin, cyclophilin A, stress 70 protein, ubiquitin in HepG2 cells and actin, peroxiredoxin 5, cytochrome C oxidase, heat shock cognate 70 in hepatocytes, Ran specific GTPase activating protein, histidine triad nucleotide binding protein 2 in HepG2 cells and enoyl CoA hydratase in hepatocytes		
Demasi, M., et al.	2003	20 S proteasome from Saccharomyces cerevisiae is responsive to redox modifications and is S-glutathionylated	20 S proteasome from Saccharomyces cerevisiae		5
Davis, D. A., et al.	2003	Reversible oxidative modification as a mechanism for regulating retroviral protease dimerization and activation	T-cell leukemia virus type 1 protease		7; 8
Dalle-Donne, I., et al.	2003	Actin S-glutathionylation: evidence against a thiol-disulphide exchange mechanism	Actin		1
Dalle-Donne, I., et al.	2003	Reversible S-glutathionylation of Cys 374 regulates actin filament formation by inducing structural changes in the actin molecule	Actin		1
Aracena, P., et al.	2003	S-glutathionylation decreases Mg2+ inhibition and S-nitrosylation enhances Ca2+ activation of RyR1 channels	RyR1		7
Rao, R. K., et al.	2002	Regulation of protein phosphatase 2A by hydrogen peroxide and glutathionylation	PP2A		6
Pineda-Molina, E., et al.	2002	S-glutathionylation of NF-kappa B subunit p50	NF-kappa B subunit p50		3
Humphries, K. M., et al.	2002	Regulation of cAMP-dependent protein kinase activity by glutathionylation	catalytic subunit of cAMP-dependent protein kinase (cAPK)		6
Ghezzi, P., et al.	2002	Protein glutathionylation: coupling and uncoupling of glutathione to protein thiol groups in lymphocytes under oxidative stress and HIV infection	GAPDH		2; 7

Fratelli, M., et al.	2002	Identification by redox proteomics of glutathionylated proteins in oxidatively stressed human T lymphocytes	vimentin, myosin, tropomyosin, cofilin, profilin, and the already known actin, enolase, aldolase, 6-phosphogluconolactonase, adenylate kinase, ubiquitin-conjugating enzyme, phosphoglycerate kinase, triosephosphate isomerase, and pyrophosphatase, peroxiredoxin 1, protein disulfide isomerase, and cytochrome c oxidase, cyclophilin, stress proteins (HSP70 and HSP60), nucleophosmin, transgelin, galectin, and fatty acid binding protein		1; 2; 3; 4; 5; 6; 7
Dixon, D. P., et al.	2002	Functional divergence in the glutathione transferase superfamily in plants. Identification of two classes with putative functions in redox homeostasis in Arabidopsis thaliana	DHAR		4
Cotgreave, I. A., et al	2002	S-glutathionylation of glyceraldehyde-3-phosphate dehydrogenase: role of thiol oxidation and catalysis by glutaredoxin	GAPDH		2; 4
Casagrande, S., et al.	2002	Glutathionylation of human thioredoxin: a possible crosstalk between the glutathione and thioredoxin systems	thioredoxin (Trx)		4
Borges, C. R., et al.	2002	Dopamine biosynthesis is regulated by S-glutathionylation. Potential mechanism of tyrosine hydroxylast inhibition during oxidative stress	Tyrosine hydroxylase (TH)		7
Wang, J., et al.	2001	Reversible glutathionylation regulates actin polymerization in A431 cells	actin		1
Pineda-Molina, E., et al.	2001	Glutathionylation of the p50 subunit of NF-kappaB: a mechanism for redox-induced inhibition of DNA binding	p50 subunit of NF-kappaB:		3
Cappiello, M., et al.	2001	Modulation of aldose reductase activity through S-thiolation by physiological thiols	ALR2		7
Reddy, S., et al.	2000	Inactivation of creatine kinase by S-glutathionylation of the active-site cysteine residue	creatine kinase (CK)		7
Klatt, P., et al.	2000	Novel application of S-nitrosoglutathione-Sepharose to identify proteins that are potential targets for S-nitrosoglutathione-induced mixed-disulphide formation	transcription factors c-Jun and p50		3
Mohr, S., et al.	1999	Nitric oxide-induced S-glutathionylation and inactivation of glyceraldehyde-3-phosphate dehydrogenase	GAPDH		2; 7
Klatt, P., et al.	1999	Nitric oxide inhibits c-Jun DNA binding by specifically targeted S-glutathionylation	c-Jun		3; 6
Barrett, W. C., et al.	1999	Regulation of PTP1B via glutathionylation of the active site cysteine 215	PTP1B		6

Barrett, W. C., et al.	1999	Roles of superoxide radical anion in signal transduction mediated by reversible regulation of protein-tyrosine phosphatase 1B	PTP-1B		6
Terazaki, H., et al.	1998	Post-translational modification of transthyretin in plasma	transthyretin (TTR)		1
Lind, C., et al.	1998	Studies on the mechanism of oxidative modification of human glyceraldehyde-3-phosphate dehydrogenase by glutathione: catalysis by glutaredoxin	GAPDH		4; 7
Sogaard, M., et al.	1993	Electrospray mass spectrometry characterization of post-translational modifications of barley alpha-amylase 1 produced in yeast	barley alpha-amylase 1 (AMY1)		7
Bolton, M. G., et al.	1993	Kinetic analysis of the reaction of melphalan with water, phosphate, and glutathione	melphalan		
Nakagawa, Y., et al.	1992	The S-thiolation of hepatocellular protein thiols during diquat metabolism	PrSH		
Rokutan, K., et al.	1991	Phagocytosis and stimulation of the respiratory burst by phorbol diester initiate S-thiolation of specific proteins in macrophages	28 kDa, 38, 30, and 21 kDa		8
Chai, Y. C., et al.	1991	Identification of an abundant S-thiolated rat liver protein as carbonic anhydrase III; characterization of S-thiolation and dethiolation reactions	30-kDa		7
Miller, R. M., et al.	1990	Phosphorylase and creatine kinase modification by thiol-disulfide exchange and by xanthine oxidase-initiated S-thiolation	Phosphorylase and creatine kinase		7
Hitomi, M, et al.	1990	Glutathione-protein mixed disulfide decreases the affinity of rat liver fatty acid-binding protein for unsaturated fatty acid	fatty acid-binding protein purified from 50 mM N-ethylmaleimide-treated rat liver (L-FABP)		7
Rokutan, K., et al.	1989	Specific S-thiolation of a 30-kDa cytosolic protein from rat liver under oxidative stress	30-kDa cytosolic protein from rat liver		7
Park, E. M., et al.	1988	S-thiolation of creatine kinase and glycogen phosphorylase b initiated by partially reduced oxygen species	cardiac creatine kinase and skeletal muscle glycogen phosphorylase b		7
Tsukahara, T., et al.	1987	Formation of mixed disulfide of cystatin-beta in cultured macrophages treated with various oxidants	cystatin-beta		1
Collison, M. W., et al.	1987	S-thiolation of cytoplasmic cardiac creatine kinase in heart cells treated with diamide	cytoplasmic cardiac creatine kinase		7
Collison, M. W., et al.	1986	A comparison of protein S-thiolation (protein mixed-disulfide formation) in heart cells treated with t-butyl hydroperoxide or diamide	proteins with molecular masses of 97, 42 and 23 kDa as well as three proteins of about 35 kDa		7
Dick, D. A., et al.	1969	Inhibition of adenosine triphosphatase in sheep red cell membranes by oxidized glutathione	adenosine triphosphatase		