# **Sheng Zhang**

#### List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

97
papers

4,582
citations

34
h-index

66
g-index

105
ext. papers

8
avg, IF

5.34
L-index

#	Paper	IF	Citations
97	Sirt5 is a NAD-dependent protein lysine demalonylase and desuccinylase. <i>Science</i> , <b>2011</b> , 334, 806-9	33.3	924
96	ER Stress Sensor XBP1 Controls Anti-tumor Immunity by Disrupting Dendritic Cell Homeostasis. <i>Cell</i> , <b>2015</b> , 161, 1527-38	56.2	427
95	A fully integrated monolithic microchip electrospray device for mass spectrometry. <i>Analytical Chemistry</i> , <b>2000</b> , 72, 4058-63	7.8	268
94	Metabolomics-assisted proteomics identifies succinylation and SIRT5 as important regulators of cardiac function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 4320-5	11.5	169
93	Quantitative determination of noncovalent binding interactions using automated nanoelectrospray mass spectrometry. <i>Analytical Chemistry</i> , <b>2003</b> , 75, 3010-8	7.8	141
92	IRE1EXBP1 controls T cell function in ovarian cancer by regulating mitochondrial activity. <i>Nature</i> , <b>2018</b> , 562, 423-428	50.4	139
91	Physiological and proteomic responses of two contrasting Populus cathayana populations to drought stress. <i>Physiologia Plantarum</i> , <b>2009</b> , 136, 150-68	4.6	118
90	Proinflammatory IgG Fc structures in patients with severe COVID-19. <i>Nature Immunology</i> , <b>2021</b> , 22, 67-	<b>73</b> 9.1	116
89	Evaluation of different multidimensional LC-MS/MS pipelines for isobaric tags for relative and absolute quantitation (iTRAQ)-based proteomic analysis of potato tubers in response to cold storage. <i>Journal of Proteome Research</i> , <b>2011</b> , 10, 4647-60	5.6	93
88	Production of secretory and extracellular N-linked glycoproteins in Escherichia coli. <i>Applied and Environmental Microbiology</i> , <b>2011</b> , 77, 871-81	4.8	93
87	Quantitative proteomic analysis reveals that antioxidation mechanisms contribute to cold tolerance in plantain (Musa paradisiaca L.; ABB Group) seedlings. <i>Molecular and Cellular Proteomics</i> , <b>2012</b> , 11, 1853-69	7.6	80
86	Automated chip-based nanoelectrospray-mass spectrometry for rapid identification of proteins separated by two-dimensional gel electrophoresis. <i>Electrophoresis</i> , <b>2003</b> , 24, 3620-32	3.6	80
85	Development of an integrated approach for evaluation of 2-D gel image analysis: impact of multiple proteins in single spots on comparative proteomics in conventional 2-D gel/MALDI workflow. <i>Electrophoresis</i> , <b>2007</b> , 28, 2080-94	3.6	75
84	A fully automated nanoelectrospray tandem mass spectrometric method for analysis of Caco-2 samples. <i>Rapid Communications in Mass Spectrometry</i> , <b>2003</b> , 17, 1573-8	2.2	69
83	Alpha-ketoglutarate dehydrogenase complex-dependent succinylation of proteins in neurons and neuronal cell lines. <i>Journal of Neurochemistry</i> , <b>2015</b> , 134, 86-96	6	68
82	Comparative transcriptomics analysis reveals difference of key gene expression between banana and plantain in response to cold stress. <i>BMC Genomics</i> , <b>2015</b> , 16, 446	4.5	66
81	The Penium margaritaceum Genome: Hallmarks of the Origins of Land Plants. <i>Cell</i> , <b>2020</b> , 181, 1097-111	15€12	62

### (2010-2014)

80	Melatonin regulates proteomic changes during leaf senescence in Malus hupehensis. <i>Journal of Pineal Research</i> , <b>2014</b> , 57, 291-307	10.4	59
79	Proteomic analysis reveals dynamic regulation of fruit development and sugar and acid accumulation in apple. <i>Journal of Experimental Botany</i> , <b>2016</b> , 67, 5145-57	7	58
78	Enabling proteomic studies with RNA-Seq: The proteome of tomato pollen as a test case. <i>Proteomics</i> , <b>2012</b> , 12, 761-74	4.8	56
77	Physiological and proteome analysis suggest critical roles for the photosynthetic system for high water-use efficiency under drought stress in Malus. <i>Plant Science</i> , <b>2015</b> , 236, 44-60	5.3	52
76	Engineered oligosaccharyltransferases with greatly relaxed acceptor-site specificity. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 816-22	11.7	45
75	Single Mutations in the VP2 300 Loop Region of the Three-Fold Spike of the Carnivore Parvovirus Capsid Can Determine Host Range. <i>Journal of Virology</i> , <b>2016</b> , 90, 753-67	6.6	43
74	A comparative study of lectin affinity based plant N-glycoproteome profiling using tomato fruit as a model. <i>Molecular and Cellular Proteomics</i> , <b>2014</b> , 13, 566-79	7.6	43
73	Regulation of phenylalanine biosynthesis. Studies on the mechanism of phenylalanine binding and feedback inhibition in the Escherichia coli P-protein. <i>Biochemistry</i> , <b>1999</b> , 38, 12212-7	3.2	42
72	Absolute quantification of Dehalococcoides proteins: enzyme bioindicators of chlorinated ethene dehalorespiration. <i>Environmental Microbiology</i> , <b>2009</b> , 11, 2687-97	5.2	41
71	Chip-based nanoelectrospray mass spectrometry for protein characterization. <i>Expert Review of Proteomics</i> , <b>2004</b> , 1, 449-68	4.2	41
70	The proteomic profiling of multiple tissue damage in chickens for a selenium deficiency biomarker discovery. <i>Food and Function</i> , <b>2020</b> , 11, 1312-1321	6.1	40
69	In planta processing and glycosylation of a nematode CLAVATA3/ENDOSPERM SURROUNDING REGION-like effector and its interaction with a host CLAVATA2-like receptor to promote parasitism. <i>Plant Physiology</i> , <b>2015</b> , 167, 262-72	6.6	40
68	Akt3 is a privileged first responder in isozyme-specific electrophile response. <i>Nature Chemical Biology</i> , <b>2017</b> , 13, 333-338	11.7	39
67	Cerebral ischemia induces the aggregation of proteins linked to neurodegenerative diseases. <i>Scientific Reports</i> , <b>2018</b> , 8, 2701	4.9	38
66	Comparative characterization of the glycosylation profiles of an influenza hemagglutinin produced in plant and insect hosts. <i>Proteomics</i> , <b>2012</b> , 12, 1269-88	4.8	38
65	Adaption of Roots to Nitrogen Deficiency Revealed by 3D Quantification and Proteomic Analysis. <i>Plant Physiology</i> , <b>2019</b> , 179, 329-347	6.6	38
64	The Cysteine-rich Domain of the DHHC3 Palmitoyltransferase Is Palmitoylated and Contains Tightly Bound Zinc. <i>Journal of Biological Chemistry</i> , <b>2015</b> , 290, 29259-69	5.4	36
63	Ao38, a new cell line from eggs of the black witch moth, Ascalapha odorata (Lepidoptera: Noctuidae), is permissive for AcMNPV infection and produces high levels of recombinant proteins. <i>BMC Biotechnology</i> , <b>2010</b> , 10, 50	3.5	34

62	Ube2V2 Is a Rosetta Stone Bridging Redox and Ubiquitin Codes, Coordinating DNA Damage Responses. <i>ACS Central Science</i> , <b>2018</b> , 4, 246-259	16.8	33
61	Probing the catalytic mechanism of prephenate dehydratase by site-directed mutagenesis of the Escherichia coli P-protein dehydratase domain. <i>Biochemistry</i> , <b>2000</b> , 39, 4722-8	3.2	33
60	Proteomic comparison of historic and recently emerged hypervirulent Clostridium difficile strains. Journal of Proteome Research, <b>2013</b> , 12, 1151-61	5.6	32
59	Substitute sweeteners: diverse bacterial oligosaccharyltransferases with unique N-glycosylation site preferences. <i>Scientific Reports</i> , <b>2015</b> , 5, 15237	4.9	31
58	Proteomic analysis of conidia germination in Fusarium oxysporum f. sp. cubense tropical race 4 reveals new targets in ergosterol biosynthesis pathway for controlling Fusarium wilt of banana. <i>Applied Microbiology and Biotechnology</i> , <b>2015</b> , 99, 7189-207	5.7	29
57	Identification and characterization of glycation adducts on osteocalcin. <i>Analytical Biochemistry</i> , <b>2017</b> , 525, 46-53	3.1	28
56	Label-free Quantitative Analysis of Changes in Broiler Liver Proteins under Heat Stress using SWATH-MS Technology. <i>Scientific Reports</i> , <b>2015</b> , 5, 15119	4.9	28
55	FcRn, but not Fc <b>R</b> s, drives maternal-fetal transplacental transport of human IgG antibodies.  Proceedings of the National Academy of Sciences of the United States of America, <b>2020</b> , 117, 12943-12951	1 <sup>11.5</sup>	25
54	Evaluation of six sample preparation procedures for qualitative and quantitative proteomics analysis of milk fat globule membrane. <i>Electrophoresis</i> , <b>2018</b> , 39, 2332-2339	3.6	25
53	Characterization of a fully automated nanoelectrospray system with mass spectrometric detection for proteomic analyses. <i>Journal of Biomolecular Techniques</i> , <b>2002</b> , 13, 72-84	1.1	25
52	Aryl hydrocarbon receptor activation by dioxin targets phosphoenolpyruvate carboxykinase (PEPCK) for ADP-ribosylation via 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-inducible poly(ADP-ribose) polymerase (TiPARP). <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 21514-25	5.4	24
51	Estrogen receptor beta modulates permeability transition in brain mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2018</b> , 1859, 423-433	4.6	23
50	Host-induced gene silencing of Foc TR4 ERG6/11 genes exhibits superior resistance to Fusarium wilt of banana. <i>Plant Biotechnology Journal</i> , <b>2020</b> , 18, 11-13	11.6	23
49	Parallel comparative proteomics and phosphoproteomics reveal that cattle regulates phosphorylation of key enzymes in glycogen metabolism and glycolysis pathway. <i>Oncotarget</i> , <b>2018</b> , 9, 11352-11370	3.3	23
48	Signaling to the apical membrane and to the paracellular pathway: changes in the cytosolic proteome of Aedes Malpighian tubules. <i>Journal of Experimental Biology</i> , <b>2009</b> , 212, 329-40	3	22
47	Proteomic characterization of outer membrane vesicles from gut mucosa-derived fusobacterium nucleatum. <i>Journal of Proteomics</i> , <b>2019</b> , 195, 125-137	3.9	21
46	MaXLinker: Proteome-wide Cross-link Identifications with High Specificity and Sensitivity. <i>Molecular and Cellular Proteomics</i> , <b>2020</b> , 19, 554-568	7.6	21
45	Characterization of protein glycosylation using chip-based infusion nanoelectrospray linear ion trap tandem mass spectrometry. <i>Journal of Biomolecular Techniques</i> , <b>2004</b> , 15, 120-33	1.1	21

## (2018-2020)

44	Challenges and Opportunities in Clinical Applications of Blood-Based Proteomics in Cancer. <i>Cancers</i> , <b>2020</b> , 12,	6.6	20
43	Mapping and Profiling Lipid Distribution in a 3D Model of Breast Cancer Progression. <i>ACS Central Science</i> , <b>2019</b> , 5, 768-780	16.8	19
42	Application of wide selected-ion monitoring data-independent acquisition to identify tomato fruit proteins regulated by the CUTIN DEFICIENT2 transcription factor. <i>Proteomics</i> , <b>2016</b> , 16, 2081-94	4.8	19
41	Comparative Phosphoproteomics Reveals an Important Role of MKK2 in Banana (Musa spp.) Cold Signal Network. <i>Scientific Reports</i> , <b>2017</b> , 7, 40852	4.9	18
40	Analytical technologies for identification and characterization of the plant N-glycoproteome. <i>Frontiers in Plant Science</i> , <b>2012</b> , 3, 150	6.2	18
39	Spirochaete flagella hook proteins self-catalyse a lysinoalanine covalent crosslink for motility.  Nature Microbiology, <b>2016</b> , 1, 16134	26.6	17
38	The ubiquitin ligase HERC3 attenuates NF- <b>B</b> -dependent transcription independently of its enzymatic activity by delivering the RelA subunit for degradation. <i>Nucleic Acids Research</i> , <b>2015</b> , 43, 9889	) <del>290</del> 4	16
37	Proteomics insights into the effects of MSTN on muscle glucose and lipid metabolism in genetically edited cattle. <i>General and Comparative Endocrinology</i> , <b>2020</b> , 291, 113237	3	16
36	Maternal Anti-Dengue IgG Fucosylation Predicts Susceptibility to Dengue Disease in Infants. <i>Cell Reports</i> , <b>2020</b> , 31, 107642	10.6	14
35	Early Cold-Induced Peroxidases and Aquaporins Are Associated With High Cold Tolerance in Dajiao (spp. Dajiao). <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 282	6.2	14
34	A workflow for large-scale empirical identification of cell wall N-linked glycoproteins of tomato (Solanum lycopersicum) fruit by tandem mass spectrometry. <i>Electrophoresis</i> , <b>2013</b> , 34, 2417-31	3.6	14
33	Characterization of protein glycosylation using chip-based nanoelectrospray with precursor ion scanning quadrupole linear ion trap mass spectrometry. <i>Journal of Biomolecular Techniques</i> , <b>2005</b> , 16, 209-19	1.1	13
32	Temporal differential proteomes of Clostridium difficile in the pig ileal-ligated loop model. <i>PLoS ONE</i> , <b>2012</b> , 7, e45608	3.7	12
31	Heat treatment of bovine colostrum: I. Effects on bacterial and somatic cell counts, immunoglobulin, insulin, and IGF-I concentrations, as well as the colostrum proteome. <i>Journal of Dairy Science</i> , <b>2020</b> , 103, 9368-9383	4	12
30	Integrated proteomic and metabolomic analysis suggests high rates of glycolysis are likely required to support high carotenoid accumulation in banana pulp. <i>Food Chemistry</i> , <b>2019</b> , 297, 125016	8.5	11
29	Early non-neutralizing, afucosylated antibody responses are associated with COVID-19 severity <i>Science Translational Medicine</i> , <b>2022</b> , 14, eabm7853	17.5	10
28	Both gut microbiota and cytokines act to atherosclerosis in ApoE-/- mice. <i>Microbial Pathogenesis</i> , <b>2020</b> , 138, 103827	3.8	10
27	The Secretome and N-Glycosylation Profiles of the Charophycean Green Alga, Penium margaritaceum, Resemble Those of Embryophytes. <i>Proteomes</i> , <b>2018</b> , 6,	4.6	9

26	Serum Proteomics on the Basis of Discovery of Predictive Biomarkers of Response to Androgen Deprivation Therapy in Advanced Prostate Cancer. <i>Clinical Genitourinary Cancer</i> , <b>2019</b> , 17, 248-253.e7	3.3	7
25	Structure and chemistry of lysinoalanine crosslinking in the spirochaete flagella hook. <i>Nature Chemical Biology</i> , <b>2019</b> , 15, 959-965	11.7	7
24	Atmospheric Ammonia Affects Myofiber Development and Lipid Metabolism in Growing Pig Muscle. <i>Animals</i> , <b>2019</b> , 10,	3.1	7
23	Heat treatment of bovine colostrum: II. Effects on calf serum immunoglobulin, insulin, and IGF-I concentrations, and the serum proteome. <i>Journal of Dairy Science</i> , <b>2020</b> , 103, 9384-9406	4	7
22	OsNOA1 functions in a threshold-dependent manner to regulate chloroplast proteins in rice at lower temperatures. <i>BMC Plant Biology</i> , <b>2018</b> , 18, 44	5.3	6
21	Multi-omics analyses of red blood cell reveal antioxidation mechanisms associated with hemolytic toxicity of gossypol. <i>Oncotarget</i> , <b>2017</b> , 8, 103693-103709	3.3	5
20	Probing the molecular regulation of lipopolysaccharide stress in piglet liver by comparative proteomics analysis. <i>Electrophoresis</i> , <b>2018</b> , 39, 2321-2331	3.6	5
19	Identification of ADP-ribosylation sites of CD38 mutants by precursor ion scanning mass spectrometry. <i>Analytical Biochemistry</i> , <b>2013</b> , 433, 218-26	3.1	5
18	Overexpression of a CPYC-Type Glutaredoxin, , Causes Abnormal Embryos and an Increased Grain Weight in Rice. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 848	6.2	4
17	Proteomic Analysis and Cell Viability of Nine Amnion, Chorion, Umbilical Cord, and Amniotic Fluid-Derived Products. <i>Cartilage</i> , <b>2020</b> , 1947603520976767	3	4
16	MaMAPK3-MaICE1-MaPOD P7 pathway, a positive regulator of cold tolerance in banana. <i>BMC Plant Biology</i> , <b>2021</b> , 21, 97	5.3	4
15	Use of a stable-isotope-labeled reporter peptide and antioxidants for reliable quantification of methionine oxidation in a monoclonal antibody by liquid chromatography/mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , <b>2016</b> , 30, 1734-1742	2.2	3
14	Altered succinylation of mitochondrial proteins, APP and tau in Alzheimer's disease <i>Nature Communications</i> , <b>2022</b> , 13, 159	17.4	3
13	Divergent early antibody responses define COVID-19 disease trajectories <b>2021</b> ,		3
12	Reduction of the canonical function of a glycolytic enzyme enolase triggers immune responses that further affect metabolism and growth in Arabidopsis. <i>Plant Cell</i> , <b>2021</b> ,	11.6	2
11	HIF1Istabilization in hypoxia is not oxidant-initiated. <i>ELife</i> , <b>2021</b> , 10,	8.9	2
10	The human brain acetylome reveals that decreased acetylation of mitochondrial proteins associates with Alzheimer's disease. <i>Journal of Neurochemistry</i> , <b>2021</b> , 158, 282-296	6	1
9	Comparison of MS, synchronous precursor selection MS, and real-time search MS methodologies for lung proteomes of hydrogen sulfide treated swine. <i>Analytical and Bioanalytical Chemistry</i> , <b>2021</b> , 413, 419-429	4.4	1

#### LIST OF PUBLICATIONS

8	Shotgun scanning glycomutagenesis: A simple and efficient strategy for constructing and characterizing neoglycoproteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	1
7	Oxygen level regulates N-terminal translation elongation of selected proteins through deoxyhypusine hydroxylation. <i>Cell Reports</i> , <b>2022</b> , 39, 110855	10.6	1
6	Impact of Whole Genome Protein Analysis on Gene Discovery of Disease Models <b>2012</b> , 471-530		O
5	Vitamin D kinetics in nonpregnant and pregnant women after a single oral dose of trideuterated vitamin D. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2021</b> , 216, 106034	5.1	O
4	Secreted sphingomyelins modulate low mammary cancer incidence observed in certain mammals. <i>Scientific Reports</i> , <b>2020</b> , 10, 20580	4.9	0
3	Role of Four Conserved Active-Site Aspartic Acid Residues in Thermobifida fusca Endoglucanase Cel6A. <i>ACS Symposium Series</i> , <b>2000</b> , 28-38	0.4	
2	Aerial ammonia exposure induces the perturbation of the interorgan ammonia disposal and branched-chain amino acid catabolism in growing pigs. <i>Animal Nutrition</i> , <b>2021</b> , 7, 947-958	4.8	
1	Quantitative proteomics reveals tissue-specific toxic mechanisms for acute hydrogen sulfide-induced injury of diverse organs in pig. <i>Science of the Total Environment</i> , <b>2022</b> , 806, 150365	10.2	