

Motoko Takahashi

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

4,239
citations

117453

34
h-index

114278

63
g-index

93
all docs

93
docs citations

93
times ranked

4783
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | From The Cover: Dysregulation of TGF- β 1 receptor activation leads to abnormal lung development and emphysema-like phenotype in core fucose-deficient mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 15791-15796. | 3.3 | 413 |
| 2 | Functional roles of N-glycans in cell signaling and cell adhesion in cancer. <i>Cancer Science</i> , 2008, 99, 1304-1310. | 1.7 | 351 |
| 3 | Core fucose and bisecting GlcNAc, the direct modifiers of the N-glycan core: their functions and target proteins. <i>Carbohydrate Research</i> , 2009, 344, 1387-1390. | 1.1 | 203 |
| 4 | A Circadian Clock Gene, Rev-erb β , Modulates the Inflammatory Function of Macrophages through the Negative Regulation of Ccl2 Expression. <i>Journal of Immunology</i> , 2014, 192, 407-417. | 0.4 | 190 |
| 5 | Induction of Apoptotic Cell Death by Methylglyoxal and 3-Deoxyglucosone in Macrophage-Derived Cell Lines. <i>Biochemical and Biophysical Research Communications</i> , 1996, 225, 219-224. | 1.0 | 175 |
| 6 | Pulmonary collectins in innate immunity of the lung. <i>Cellular Microbiology</i> , 2007, 9, 1871-1879. | 1.1 | 169 |
| 7 | Introduction of Bisecting GlcNAc into Integrin α 5 β 1 Reduces Ligand Binding and Down-regulates Cell Adhesion and Cell Migration. <i>Journal of Biological Chemistry</i> , 2004, 279, 19747-19754. | 1.6 | 162 |
| 8 | Core fucosylation of E-cadherin enhances cell-cell adhesion in human colon carcinoma WiDr cells. <i>Cancer Science</i> , 2009, 100, 888-895. | 1.7 | 111 |
| 9 | Selective Induction of Heparin-binding Epidermal Growth Factor-like Growth Factor by Methylglyoxal and 3-Deoxyglucosone in Rat Aortic Smooth Muscle Cells. <i>Journal of Biological Chemistry</i> , 1997, 272, 18453-18459. | 1.6 | 100 |
| 10 | Overexpression of N-Acetylglucosaminyltransferase III Enhances the Epidermal Growth Factor-induced Phosphorylation of ERK in HeLaS3 Cells by Up-regulation of the Internalization Rate of the Receptors. <i>Journal of Biological Chemistry</i> , 2001, 276, 11956-11962. | 1.6 | 87 |
| 11 | Identification of the Binding Site of Methylglyoxal on Glutathione Peroxidase: Methylglyoxal Inhibits Glutathione Peroxidase Activity via Binding to Glutathione Binding Sites Arg 184 and 185. <i>Free Radical Research</i> , 2003, 37, 205-211. | 1.5 | 87 |
| 12 | Pulmonary Surfactant Protein D Inhibits Lipopolysaccharide (LPS)-induced Inflammatory Cell Responses by Altering LPS Binding to Its Receptors. <i>Journal of Biological Chemistry</i> , 2008, 283, 35878-35888. | 1.6 | 84 |
| 13 | Acrolein Induces Cyclooxygenase-2 and Prostaglandin Production in Human Umbilical Vein Endothelial Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2007, 27, 1319-1325. | 1.1 | 80 |
| 14 | A glycomic approach to the identification and characterization of glycoprotein function in cells transfected with glycosyltransferase genes. <i>Proteomics</i> , 2001, 1, 239-247. | 1.3 | 79 |
| 15 | Isolation, Purification, and Characterization of Amadoriase Isoenzymes (Fructosyl Amine-oxygen) Tj ETQq1 1 0.784314 rgBT /Overlock 1 | 1.6 | 78 |
| 16 | Elevation of aldose reductase gene expression in rat primary hepatoma and hepatoma cell lines: Implication in detoxification of cytotoxic aldehydes. <i>International Journal of Cancer</i> , 1995, 62, 749-754. | 2.3 | 74 |
| 17 | In vivo glycation of aldehyde reductase, a major 3-deoxyglucosone reducing enzyme: identification of glycation sites. <i>Biochemistry</i> , 1995, 34, 1433-1438. | 1.2 | 73 |
| 18 | Induction of thioredoxin reductase as an adaptive response to acrolein in human umbilical vein endothelial cells. <i>Biochemical and Biophysical Research Communications</i> , 2005, 327, 1058-1065. | 1.0 | 71 |

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|----|--|-----|-----------|
| 19 | Role of N-glycans in growth factor signaling. <i>Glycoconjugate Journal</i> , 2003, 20, 207-212. | 1.4 | 67 |
| 20 | Glycation of Human β 2-Microglobulin in Patients with Hemodialysis-Associated Amyloidosis: Identification of the Glycated Sites. <i>Biochemistry</i> , 1994, 33, 12215-12221. | 1.2 | 64 |
| 21 | Disease-associated glycans on cell surface proteins. <i>Molecular Aspects of Medicine</i> , 2016, 51, 56-70. | 2.7 | 64 |
| 22 | Impaired diversity of the lung microbiome predicts progression of idiopathic pulmonary fibrosis. <i>Respiratory Research</i> , 2018, 19, 34. | 1.4 | 64 |
| 23 | The Effects of Exercise Training on Obesity-Induced Dysregulated Expression of Adipokines in White Adipose Tissue. <i>International Journal of Endocrinology</i> , 2013, 2013, 1-28. | 0.6 | 63 |
| 24 | Molecular Cloning and Expression of Amadoriase Isoenzyme (Fructosyl Amine:Oxygen Oxidoreductase,) Tj ETQq0 0,0 rgBT /Overlock 10 | 1.6 | 53 |
| 25 | β 1,4-N-Acetylglucosaminyltransferase III down-regulates neurite outgrowth induced by costimulation of epidermal growth factor and integrins through the Ras/ERK signaling pathway in PC12 cells. <i>Glycobiology</i> , 2003, 14, 177-186. | 1.3 | 52 |
| 26 | N-glycan of ErbB family plays a crucial role in dimer formation and tumor promotion. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2008, 1780, 520-524. | 1.1 | 52 |
| 27 | The Asn418-Linked N-Glycan of ErbB3 Plays a Crucial Role in Preventing Spontaneous Heterodimerization and Tumor Promotion. <i>Cancer Research</i> , 2007, 67, 1935-1942. | 0.4 | 51 |
| 28 | Detection of N-glycosylated gangliosides in non-small-cell lung cancer using GMR8 monoclonal antibody. <i>Cancer Science</i> , 2013, 104, 43-47. | 1.7 | 49 |
| 29 | Spontaneous skin damage and delayed wound healing in SOD1-deficient mice. <i>Molecular and Cellular Biochemistry</i> , 2010, 341, 181-194. | 1.4 | 48 |
| 30 | Loss of Core Fucosylation of Low-Density Lipoprotein Receptor-Related Protein-1 Impairs Its Function, Leading to the Upregulation of Serum Levels of Insulin-Like Growth Factor-Binding Protein 3 in $Fut8^{-/-}$ Mice. <i>Journal of Biochemistry</i> , 2006, 139, 391-398. | 0.9 | 47 |
| 31 | Aldehyde reductase gene expression by lipid peroxidation end products, MDA and HNE. <i>Free Radical Research</i> , 2000, 33, 739-746. | 1.5 | 45 |
| 32 | Cloning of Amadoriase I Isoenzyme from <i>Aspergillus</i> sp.: Evidence of FAD Covalently Linked to Cys342. <i>Biochemistry</i> , 2000, 39, 1515-1521. | 1.2 | 45 |
| 33 | Glycation and inactivation of sorbitol dehydrogenase in normal and diabetic rats. <i>Biochemical Journal</i> , 1996, 318, 119-123. | 1.7 | 41 |
| 34 | Pulmonary Collectins Protect Macrophages against Pore-forming Activity of <i>Legionella pneumophila</i> and Suppress Its Intracellular Growth. <i>Journal of Biological Chemistry</i> , 2010, 285, 8434-8443. | 1.6 | 37 |
| 35 | Glycation proceeds faster in mutated Cu, Zn-superoxide dismutases related to familial amyotrophic lateral sclerosis. <i>FASEB Journal</i> , 2003, 17, 1-18. | 0.2 | 34 |
| 36 | In vivo role of aldehyde reductase. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2012, 1820, 1787-1796. | 1.1 | 34 |

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|----|--|-----|-----------|
| 37 | Induction of Aldose Reductase Gene Expression in LEC Rats during the Development of the Hereditary Hepatitis and Hepatoma. Japanese Journal of Cancer Research, 1996, 87, 337-341. | 1.7 | 33 |
| 38 | Overexpression of the Aldose Reductase Gene Induces Apoptosis in Pancreatic β -Cells by Causing a Redox Imbalance. Journal of Biochemistry, 1999, 126, 41-47. | 0.9 | 33 |
| 39 | Down-regulation of Hydrogen Peroxide-induced PKC δ Activation in N-Acetylglucosaminyltransferase III-transfected HeLaS3 Cells. Journal of Biological Chemistry, 2003, 278, 3197-3203. | 1.6 | 31 |
| 40 | Osmotic Stress Induces HB-EGF Gene Expression via Ca ²⁺ /Pyk2/JNK Signal Cascades in Rat Aortic Smooth Muscle Cells. Journal of Biochemistry, 2001, 130, 351-358. | 0.9 | 29 |
| 41 | Localization and physiological implication of aldose reductase and sorbitol dehydrogenase in reproductive tracts and spermatozoa of male rats. Journal of Andrology, 2002, 23, 674-83. | 2.0 | 29 |
| 42 | Apolipoprotein E Activates Akt Pathway in Neuro-2a in an Isoform-Specific Manner. Biochemical and Biophysical Research Communications, 2002, 292, 83-87. | 1.0 | 28 |
| 43 | A secreted type of β 1,6 N-acetylglucosaminyltransferase V (GnT β V), a novel angiogenesis inducer, is regulated by β 3-secretase. FASEB Journal, 2006, 20, 2451-2459. | 0.2 | 27 |
| 44 | Pulmonary Surfactant Protein D Binds MD-2 through the Carbohydrate Recognition Domain. Biochemistry, 2008, 47, 12878-12885. | 1.2 | 26 |
| 45 | Fucosylated surfactant protein-D is a biomarker candidate for the development of chronic obstructive pulmonary disease. Journal of Proteomics, 2015, 127, 386-394. | 1.2 | 25 |
| 46 | <i>N</i> -glycans of growth factor receptors: their role in receptor function and disease implications. Clinical Science, 2016, 130, 1781-1792. | 1.8 | 25 |
| 47 | Overexpression of mutated Cu,Zn-SOD in neuroblastoma cells results in cytoskeletal change. American Journal of Physiology - Cell Physiology, 2005, 288, C253-C259. | 2.1 | 24 |
| 48 | Surfactant Protein D Inhibits Adherence of Uropathogenic Escherichia coli to the Bladder Epithelial Cells and the Bacterium-induced Cytotoxicity. Journal of Biological Chemistry, 2012, 287, 39578-39588. | 1.6 | 24 |
| 49 | Reductive detoxification of acrolein as a potential role for aldehyde reductase (AKR1A) in mammals. Biochemical and Biophysical Research Communications, 2014, 452, 136-141. | 1.0 | 23 |
| 50 | Acrolein induces Hsp72 via both PKC δ /JNK and calcium signaling pathways in human umbilical vein endothelial cells. Free Radical Research, 2005, 39, 507-512. | 1.5 | 22 |
| 51 | Pulmonary Collectins Play Distinct Roles in Host Defense against <i>Mycobacterium avium</i> . Journal of Immunology, 2011, 187, 2586-2594. | 0.4 | 22 |
| 52 | Suppression of Heregulin β 2 Signaling by the Single N-Glycan Deletion Mutant of Soluble ErbB3 Protein. Journal of Biological Chemistry, 2013, 288, 32910-32921. | 1.6 | 22 |
| 53 | Introduction of bisecting GlcNAc in N-glycans of adenyl cyclase III enhances its activity. Glycobiology, 2007, 17, 655-662. | 1.3 | 20 |
| 54 | Mannose binding lectin and lung collectins interact with Toll-like receptor 4 and MD-2 by different mechanisms. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 1705-1710. | 1.1 | 20 |

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|----|--|-----|-----------|
| 55 | Glycation vs. glycosylation: a tale of two different chemistries and biology in Alzheimer's disease. <i>Glycoconjugate Journal</i> , 2016, 33, 487-497. | 1.4 | 20 |
| 56 | Role of glycosyltransferases in carcinogenesis; growth factor signaling and EMT/MET programs. <i>Glycoconjugate Journal</i> , 2022, 39, 167-176. | 1.4 | 19 |
| 57 | Measurement of peroxiredoxin-4 serum levels in rat tissue and its use as a potential marker for hepatic disease. <i>Molecular Medicine Reports</i> , 2012, 6, 379-384. | 1.1 | 18 |
| 58 | The Internalization and Metabolism of 3-Deoxyglucosone in Human Umbilical Vein Endothelial Cells. <i>Journal of Biochemistry</i> , 2006, 139, 245-253. | 0.9 | 17 |
| 59 | Functional glycomics and evidence for gain- and loss-of-functions of target proteins for glycosyltransferases involved in N-glycan biosynthesis: their pivotal roles in growth and development, cancer metastasis and antibody therapy against cancer. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2004, 80, 82-91. | 1.6 | 16 |
| 60 | Disruption of the structural and functional features of surfactant protein A by acrolein in cigarette smoke. <i>Scientific Reports</i> , 2017, 7, 8304. | 1.6 | 15 |
| 61 | Colocalization of polyol-metabolizing enzymes and immunological detection of fructated proteins in the female reproductive system of the rat. <i>Histochemistry and Cell Biology</i> , 2003, 119, 309-315. | 0.8 | 14 |
| 62 | Gliclazide Inhibits Proliferation but Stimulates Differentiation of White and Brown Adipocytes. <i>Journal of Biochemistry</i> , 2007, 142, 639-645. | 0.9 | 14 |
| 63 | A Common Pathway for Intracellular Reactive Oxygen Species Production by Glycooxidative and Nitrooxidative Stress in Vascular Endothelial Cells and Smooth Muscle Cells. <i>Annals of the New York Academy of Sciences</i> , 2005, 1043, 521-528. | 1.8 | 13 |
| 64 | Pleiotropic Actions of Aldehyde Reductase (AKR1A). <i>Metabolites</i> , 2021, 11, 343. | 1.3 | 13 |
| 65 | Pulmonary Surfactant Protein A Protects Lung Epithelium from Cytotoxicity of Human Î²-Defensin 3. <i>Journal of Biological Chemistry</i> , 2012, 287, 15034-15043. | 1.6 | 11 |
| 66 | Surfactant Protein A Inhibits Growth and Adherence of Uropathogenic <i>Escherichia coli</i> To Protect the Bladder from Infection. <i>Journal of Immunology</i> , 2017, 198, 2898-2905. | 0.4 | 11 |
| 67 | N-glycosylation regulates MET processing and signaling. <i>Cancer Science</i> , 2022, 113, 1292-1304. | 1.7 | 11 |
| 68 | Different Immunoreactivity against Monoclonal Antibodies between Wild-type and Mutant Copper/Zinc Superoxide Dismutase Linked to Amyotrophic Lateral Sclerosis. <i>Journal of Biological Chemistry</i> , 2005, 280, 5061-5070. | 1.6 | 10 |
| 69 | Ascorbic acid reverses the prolonged anesthetic action of pentobarbital in Akr1a-knockout mice. <i>Life Sciences</i> , 2014, 95, 1-8. | 2.0 | 10 |
| 70 | Surfactant protein A down-regulates epidermal growth factor receptor by mechanisms different from those of surfactant protein D. <i>Journal of Biological Chemistry</i> , 2017, 292, 18565-18576. | 1.6 | 9 |
| 71 | Glycation of Proteins. , 2015, , 1339-1345. | | 9 |
| 72 | The single N-glycan deletion mutant of soluble ErbB3 protein attenuates heregulin Î²1-induced tumor progression by blocking of the HIF-1 and Nrf2 pathway. <i>Biochemical and Biophysical Research Communications</i> , 2014, 454, 364-368. | 1.0 | 7 |

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|----|--|-----|-----------|
| 73 | Physiological Relevance of Aldehyde Reductase and Aldose Reductase Gene Expression. <i>Advances in Experimental Medicine and Biology</i> , 1999, 463, 419-426. | 0.8 | 7 |
| 74 | Mice deficient in aldo-keto reductase 1a (Akr1a) are resistant to thioacetamide-induced liver injury. <i>Toxicology Letters</i> , 2018, 294, 37-43. | 0.4 | 6 |
| 75 | Insufficient serum L-ficolin is associated with disease presence and extent of pulmonary <i>Mycobacterium avium</i> complex disease. <i>Respiratory Research</i> , 2019, 20, 224. | 1.4 | 6 |
| 76 | Acrolein in cigarette smoke attenuates the innate immune responses mediated by surfactant protein D. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2020, 1864, 129699. | 1.1 | 6 |
| 77 | Mutational analysis of Cys88 of Toll-like receptor 4 highlights the critical role of MD-2 in cell surface receptor expression. <i>International Immunology</i> , 2009, 21, 925-934. | 1.8 | 5 |
| 78 | Surfactant protein A (SP-A) and SP-A-derived peptide attenuate chemotaxis of mast cells induced by human β -defensin 3. <i>Biochemical and Biophysical Research Communications</i> , 2017, 485, 107-112. | 1.0 | 5 |
| 79 | A Defect in the Mitochondrial Import of Mutant Mn-Superoxide Dismutase Produced in Sf21 Cells. <i>Journal of Biochemistry</i> , 1998, 124, 340-346. | 0.9 | 3 |
| 80 | Selective suppression of IgG2a subclass in LEC rats during development. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1994, 1200, 277-280. | 1.1 | 1 |
| 81 | Proteomic and glycomic analyses of a lung-specific protein surfactant protein-D. <i>Data in Brief</i> , 2015, 5, 707-711. | 0.5 | 1 |
| 82 | Maillard reaction in vivo and its relevance to diseases: editorial and dedication. <i>Glycoconjugate Journal</i> , 2021, 38, 277-281. | 1.4 | 1 |
| 83 | Functional Regulation of ErbB Receptors by N-Glycans. , 2014, , 1-6. | | 1 |
| 84 | Localization and physiological implication of polyol-metabolizing enzymes in male and female reproductive systems of rat. <i>International Congress Series</i> , 2002, 1245, 363-364. | 0.2 | 0 |
| 85 | Inactivation of thioredoxin reductase by acrolein. <i>International Congress Series</i> , 2002, 1245, 433-434. | 0.2 | 0 |
| 86 | Glycation in Disease. , 2021, , 119-132. | | 0 |
| 87 | Glycosyltransferase Genes: Applications to Medical Science.. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2000, 28, 217-232. | 0.6 | 0 |
| 88 | Amadoriase Isoenzymes (Fructosyl Amine: Oxygen Oxidoreductase EC 1.5.3) from <i>Aspergillus Fumigatus</i> . , 2005, , 28-34. | | 0 |
| 89 | Glycation of Proteins. , 2014, , 1-7. | | 0 |
| 90 | Functional Regulation of ErbB Receptors by N-Glycans. , 2015, , 983-989. | | 0 |

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|----|---|----|-----------|
| 91 | Life-Style Related Disease and Aging. , 2019, , 269-288. | | 0 |
| 92 | Analysis of N-glycan of Growth Factor Receptors. , 2008, , 351-354. | | 0 |