Shigehisa Hirose

List of Publications by Year
in descending order

117 papers	5,682 citations	50276 46 h-index	85541 71 g-index
117 all docs	117 docs citations	117 times ranked	4604 citing authors

#	Article	IF	Citations
1	MARCHâ€V is a novel mitofusin 2â€•and Drp1â€binding protein able to change mitochondrial morphology. EMBO Reports, 2006, 7, 1019-1022.	4.5	369
2	Molecular biology of major components of chloride cells. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2003, 136, 593-620.	1.6	250
3	Mechanism of acid adaptation of a fish living in a pH 3.5 lake. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2003, 284, R1199-R1212.	1.8	189
4	Ammonia secretion from fish gill depends on a set of Rh glycoproteins. FASEB Journal, 2007, 21, 1067-1074.	0.5	174
5	The trappin gene family: proteins defined by an N-terminal transglutaminase substrate domain and a C-terminal four-disulphide core. Biochemical Journal, 1999, 340, 569-577.	3.7	170
6	Enhanced Expression of Endothelial Oxidized Low-Density Lipoprotein Receptor (LOX-1) in Hypertensive Rats. Biochemical and Biophysical Research Communications, 1997, 237, 496-498.	2.1	155
7	Regulation of Mitochondrial Morphology by USP30, a Deubiquitinating Enzyme Present in the Mitochondrial Outer Membrane. Molecular Biology of the Cell, 2008, 19, 1903-1911.	2.1	147
8	Immunochemical identification of renin in rat brain and distinction from acid proteases. Nature, 1978, 274, 392-393.	27.8	142
9	Inwardly rectifying K+ channel Kir7.1 is highly expressed in thyroid follicular cells, intestinal epithelial cells and choroid plexus epithelial cells: implication for a functional coupling with Na+,K+-ATPase. Biochemical Journal, 1999, 342, 329-336.	3.7	114
10	Renin and prorenin in hog brain: Ubiquitous distribution and high concentration in the pituitary and pineal. Brain Research, 1980, 191, 489-499.	2.2	111
11	Elastase Inhibitor Elafin Is a New Type of Proteinase Inhibitor Which Has a Transglutaminase-Mediated Anchoring Sequence Termed â€œCementoinâ€1. Journal of Biochemistry, 1994, 115, 441-448.	1.7	108
12	Visualization in zebrafish larvae of Na+ uptake in mitochondria-rich cells whose differentiation is dependent on foxi3a. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 292, R470-R480.	1.8	103
13	Genomic Organization and Regulation of Expression of the Lectin-like Oxidized Low-density Lipoprotein Receptor (LOX-1) Gene. Journal of Biological Chemistry, 1998, 273, 33702-33707.	3.4	98
14	Dimerization of Midkine by Tissue Transglutaminase and Its Functional Implication. Journal of Biological Chemistry, 1997, 272, 9410-9416.	3.4	97
15	Multiplicity, Structures, and Endocrine and Exocrine Natures of Eel Fucose-binding Lectins. Journal of Biological Chemistry, 2000, 275, 33151-33157.	3.4	97
16	Rh glycoprotein expression is modulated in pufferfish (Takifugu rubripes) during high environmental ammonia exposure. Journal of Experimental Biology, 2010, 213, 3150-3160.	1.7	95
17	Takifugu obscurus is a euryhaline fugu species very close to Takifugu rubripes and suitable for studying osmoregulation. BMC Physiology, 2005, 5, 18.	3.6	89
18	Localization of ammonia transporter Rhcg1 in mitochondrion-rich cells of yolk sac, gill, and kidney of zebrafish and its ionic strength-dependent expression. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 293, R1743-R1753.	1.8	86

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19	Neuropeptide Specificity and Inhibition of Recombinant Isoforms of the Endopeptidase 3.4.24.16 Family: Comparison with the Related Recombinant Endopeptidase 3.4.24.15. Biochemical and Biophysical Research Communications, 1998, 250, 5-11.	2.1	80
20	Alveolar soft-part sarcoma. American Journal of Surgical Pathology, 1983, 7, 679-690.	3.7	76
21	Primary structure of the human elafin precursor preproelafin deduced from the nucleotide sequence of its gene and the presence of unique repetitive sequences in the prosegment. Biochemical and Biophysical Research Communications, 1992, 185, 240-245.	2.1	74
22	MARCH-II Is a Syntaxin-6â€"binding Protein Involved in Endosomal Trafficking. Molecular Biology of the Cell, 2005, 16, 1696-1710.	2.1	71
23	Expression of endocrine genes in zebrafish larvae in response to environmental salinity. Journal of Endocrinology, 2007, 193, 481-491.	2.6	71
24	Mechanism of development of ionocytes rich in vacuolar-type H+-ATPase in the skin of zebrafish larvae. Developmental Biology, 2009, 329, 116-129.	2.0	69
25	Cleavage of Ig-Hepta at a â€œSEAâ€•Module and at a Conserved G Protein-coupled Receptor Proteolytic Site. Journal of Biological Chemistry, 2002, 277, 23391-23398.	3.4	68
26	Localization of Inward Rectifier Potassium Channel Kir7.1 in the Basolateral Membrane of Distal Nephron and Collecting Duct. Journal of the American Society of Nephrology: JASN, 2000, 11, 1987-1994.	6.1	68
27	Cloning and expression of eel natriuretic-peptide receptor B and comparison with its mammalian counterparts. FEBS Journal, 1994, 222, 835-842.	0.2	62
28	Ig-Hepta, a Novel Member of the G Protein-coupled Hepta-helical Receptor (GPCR) Family That Has Immunoglobulin-like Repeats in a Long N-terminal Extracellular Domain and Defines a New Subfamily of GPCRs. Journal of Biological Chemistry, 1999, 274, 19957-19964.	3.4	60
29	Lung Surfactant Levels are Regulated by Ig-Hepta/GPR116 by Monitoring Surfactant Protein D. PLoS ONE, 2013, 8, e69451.	2.5	60
30	Bifunctional Atrial Natriuretic Peptide Receptor (Type A) Exists as a Disulfide-Linked Tetramer in Plasma Membranes of Bovine Adrenal Cortex1. Journal of Biochemistry, 1991, 110, 35-39.	1.7	59
31	Identification of plasma inactive renin as prorenin with a site-directed antibody. Biochemical and Biophysical Research Communications, 1985, 126, 641-645.	2.1	58
32	Solubilization and molecular weight estimation of atrial natriuretic factor receptor from bovine adrenal cortex. Biochemical and Biophysical Research Communications, 1985, 130, 574-579.	2.1	58
33	Identification by Differential Display of a Hypertonicity-inducible Inward Rectifier Potassium Channel Highly Expressed in Chloride Cells. Journal of Biological Chemistry, 1999, 274, 11376-11382.	3.4	58
34	Relationships between obesity and metabolic hormones in the â€œcobaltâ€•variant of rainbow trout. General and Comparative Endocrinology, 2002, 128, 36-43.	1.8	58
35	Up-Regulation of Elafin/SKALP Gene Expression in Psoriatic Epidermis. Journal of Investigative Dermatology, 1994, 103, 88-91.	0.7	57
36	Eel urea transporter is localized to chloride cells and is salinity dependent. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2001, 281, R1594-R1604.	1.8	57

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37	The natriuretic peptide system in eels: a key endocrine system for euryhalinity?. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2002, 282, R940-R951.	1.8	56
38	Close Association of Carbonic Anhydrase (CA2a and CA15a), Na+/H+ Exchanger (Nhe3b), and Ammonia Transporter Rhcg1 in Zebrafish Ionocytes Responsible for Na+ Uptake. Frontiers in Physiology, 2013, 4, 59.	2.8	56
39	MARCH-XI, a Novel Transmembrane Ubiquitin Ligase Implicated in Ubiquitin-dependent Protein Sorting in Developing Spermatids*. Journal of Biological Chemistry, 2007, 282, 24806-24815.	3.4	54
40	In SituIdentification of Messenger RNA of Endothelial Type Nitric Oxide Synthase in Rat Cardiac Myocytes. Biochemical and Biophysical Research Communications, 1996, 218, 601-605.	2.1	53
41	Stimulation by C-Type Natriuretic Peptide of the Differentiation of Clonal Osteoblastic MC3T3-E1 Cells. Biochemical and Biophysical Research Communications, 1996, 221, 703-707.	2.1	51
42	Unique repetitive sequence and unexpected regulation of expression of rat endothelial receptor for oxidized low-density lipoprotein (LOX-1). Biochemical Journal, 1998, 330, 1417-1422.	3.7	51
43	Accumulation of Elafin in Actinic Elastosis of Sun-Damaged Skin: Elafin Binds to Elastin and Prevents Elastolytic Degradation. Journal of Investigative Dermatology, 2007, 127, 1358-1366.	0.7	51
44	Tissue distribution and localization of natriuretic peptide receptor subtypes in stroke-prone spontaneously hypertensive rats. Journal of Hypertension, 1997, 15, 1235-1243.	0.5	50
45	Cloning and Properties of a Novel Natriuretic Peptide Receptor, NPR-D. FEBS Journal, 1995, 233, 102-109.	0.2	49
46	Roles of Slc13a1 and Slc26a1 sulfate transporters of eel kidney in sulfate homeostasis and osmoregulation in freshwater. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 289, R575-R585.	1.8	48
47	Differential subcellular distribution of neurolysin (EC 3.4.24.16) and thimet oligopeptidase (EC) Tj ETQq1 1 0.784314 rgBT /Overlock	2.2	47
48	Mutational analysis of action of mitochondrial fusion factor mitofusin-2. Journal of Cell Science, 2005, 118, 3153-3161.	2.0	47
49	Cloning and sequence analysis of cDNA clones for bovine aortic-endothelial-cell transglutaminase. FEBS Journal, 1991, 202, 15-21.	0.2	46
50	Effects of nitric oxide from exogenous nitric oxide donors on osteoblastic metabolism. European Journal of Pharmacology, 1998, 349, 345-350.	3.5	46
51	Targeting of Endopeptidase 24.16 to Different Subcellular Compartments by Alternative Promoter Usage. Journal of Biological Chemistry, 1997, 272, 15313-15322.	3.4	43
52	Accelerated Evolution in Inhibitor Domains of Porcine Elafin Family Members. Journal of Biological Chemistry, 1996, 271, 7012-7018.	3.4	41
53	Structure, properties and enhanced expression of galactose-binding C-type lectins in mucous cells of gills from freshwater Japanese eels (Anguilla japonica). Biochemical Journal, 2001, 360, 107.	3.7	41
54	Cloning, properties and tissue distribution of natriuretic peptide receptor-A of euryhaline eel,Anguilla japonica. FEBS Journal, 1999, 259, 204-211.	0.2	38

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55	MARCH-III Is a Novel Component of Endosomes with Properties Similar to Those of MARCH-II. Journal of Biochemistry, 2006, 139, 137-145.	1.7	38
56	Stage-specific enhanced expression of mitochondrial fusion and fission factors during spermatogenesis in rat testis. Biochemical and Biophysical Research Communications, 2003, 311, 424-432.	2.1	37
57	Membrane-associated RING-CH 10 (MARCH10 Protein) Is a Microtubule-associated E3 Ubiquitin Ligase of the Spermatid Flagella. Journal of Biological Chemistry, 2011, 286, 39082-39090.	3.4	33
58	Cloning, amino acid sequence and tissue distribution of porcine thimet oligopeptidase. A comparison with soluble angiotensin-binding protein. FEBS Journal, 1994, 221, 159-165.	0.2	32
59	Comparative molecular biology of natriuretic peptide receptors. Canadian Journal of Physiology and Pharmacology, 2001, 79, 665-672.	1.4	32
60	Na⁺/H⁺and Na⁺/NH₄⁺exchange activities of zebrafish NHE3b expressed inXenopusoocytes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2014, 306, R315-R327.	1.8	31
61	Multiple Processing of Ig-Hepta/GPR116, a G Proteinâ€"Coupled Receptor with Immunoglobulin (Ig)-Like Repeats, and Generation of EGF2-Like Fragment. Journal of Biochemistry, 2006, 140, 445-452.	1.7	30
62	Identification of zebrafish FXYD11a protein that is highly expressed in ion-transporting epithelium of the gill and skin and its possible role in ion homeostasis. Frontiers in Physiology, 2010, 1, 129.	2.8	30
63	Cloning, Properties, Site-Directed Mutagenesis Analysis of the Subunit Structure, Tissue Distribution and Regulation of Expression of the Type-C Eel Natriuretic Peptide Receptor. FEBS Journal, 1995, 227, 673-680.	0.2	30
64	Role of Natriuretic Peptide Receptor Type C in Dahl Salt-Sensitive Hypertensive Rats. Hypertension, 1997, 30, 177-183.	2.7	29
65	Purification and characterization of angiotensin-binding protein from porcine liver cytosolic fraction. FEBS Journal, 1989, 185, 405-410.	0.2	27
66	Physical and functional association of the atrial natriuretic peptide receptor with particulate guanylate cyclase as demonstrated using detergent extracts of bovine lung membranes. Biochemical and Biophysical Research Communications, 1986, 140, 101-106.	2.1	26
67	His145-Trp146 Residues and the Disulfide-Linked Loops in Atrial Natriuretic Peptide Receptor Are Critical for the Ligand-Binding Activity1. Journal of Biochemistry, 1994, 115, 563-567.	1.7	26
68	Ubiquitin-specific protease 19 regulates the stability of the E3 ubiquitin ligase MARCH6. Experimental Cell Research, 2014, 328, 207-216.	2.6	26
69	Sensory systems and ionocytes are targets for silver nanoparticle effects in fish. Nanotoxicology, 2016, 10, 1276-1286.	3.0	26
70	Effects of Desacetyl-Î±-MSH on Lipid Mobilization in the Rainbow Trout, Oncorhynchus mykiss. Zoological Science, 2000, 17, 1123-1127.	0.7	25
71	Rhesus Glycoprotein P2 (Rhp2) Is a Novel Member of the Rh Family of Ammonia Transporters Highly Expressed in Shark Kidney. Journal of Biological Chemistry, 2010, 285, 2653-2664.	3.4	25
72	Synthesis and Characterization of Human Prorenin in Escherichia coli1. Journal of Biochemistry, 1986, 100, 425-432.	1.7	24

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73	MARCH7 E3 ubiquitin ligase is highly expressed in developing spermatids of rats and its possible involvement in head and tail formation. Histochemistry and Cell Biology, 2013, 139, 447-460.	1.7	23
74	Interrelation between nitric oxide synthase and heme oxygenase in rat endothelial cells. European Journal of Pharmacology, 1997, 331, 87-91.	3.5	22
75	Loss of the adhesion G-protein coupled receptor ADGRF5 in mice induces airway inflammation and the expression of CCL2 in lung endothelial cells. Respiratory Research, 2019, 20, 11.	3.6	22
76	Orphan GPR116 mediates the insulin sensitizing effects of the hepatokine FNDC4 in adipose tissue. Nature Communications, 2021, 12, 2999.	12.8	22
77	INTERMEDIATE MOLECULAR WEIGHT RENIN AND RENIN-BINDING PROTEIN(S) IN THE HOG KIDNEY . Biomedical Research, 1980, 1, 392-399.	0.9	22
78	Identification of SAMT family proteins as substrates of MARCH11 in mouse spermatids. Histochemistry and Cell Biology, 2012, 137, 53-65.	1.7	21
79	Targeted Disruption of Ig-Hepta/Gpr116 Causes Emphysema-like Symptoms That Are Associated with Alveolar Macrophage Activation. Journal of Biological Chemistry, 2015, 290, 11032-11040.	3.4	20
80	Endothelins inhibit the mineralization of osteoblastic MC3T3-E1 cells through the A-type endothelin receptor. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1998, 275, R1099-R1105.	1.8	19
81	Identification and proximal tubular localization of the Mg²⁺transporter, Slc41a1, in a seawater fish. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2013, 305, R385-R396.	1.8	19
82	Expression of the K+ channel Kir7.1 in the developing rat kidney: Role in K+ excretion. Kidney International, 2003, 63, 969-975.	5.2	18
83	Enhanced expression and release of C-type natriuretic peptide in freshwater eels. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2001, 280, R1727-R1735.	1.8	17
84	Complex Structure and Regulation of Expression of the Rat Gene for Inward Rectifier Potassium Channel Kir7.1. Journal of Biological Chemistry, 2000, 275, 28276-28284.	3.4	16
85	FHL5, a novel actin-binding protein, is highly expressed in eel gill pillar cells and responds to wall tension. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2004, 287, R1141-R1154.	1.8	16
86	A Novel Potential Role for Gametogenetin-Binding Protein 1 (GGNBP1) in Mitochondrial Morphogenesis During Spermatogenesis in Mice1. Biology of Reproduction, 2009, 80, 762-770.	2.7	15
87	Characterization of the Column and Autocellular Junctions That Define the Vasculature of Gill Lamellae. Journal of Histochemistry and Cytochemistry, 2007, 55, 941-953.	2.5	14
88	Definitive Evidence for Renin in Rat Brain by Affinity Chromatographic Separation from Protease. Clinical Science and Molecular Medicine Supplement, 1978, 55, 121s-123s.	0.5	13
89	Cloning, Characterization, and Tissue Distribution of Porcine SPAI, a Protein with a Transglutaminase Substrate Domain and the WAP Motif. Journal of Biological Chemistry, 1995, 270, 22428-22433.	3.4	13
90	Cloning, Properties, Siteâ€Directed Mutagenesis Analysis of the Subunit Structure, Tissue Distribution and Regulation of Expression of the Typeâ€<i>C</i> Eel Natriuretic Peptide Receptor. FEBS Journal, 1995, 227, 673-680.	0.2	13

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91	Identification and lateral membrane localization of cyclin M3, likely to be involved in renal Mg²⁺handling in seawater fish. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2014, 307, R525-R537.	1.8	13
92	RING finger, B-box, and coiled-coil (RBCC) protein expression in branchial epithelial cells of Japanese eel, Anguilla japonica. FEBS Journal, 2002, 269, 6152-6161.	0.2	12
93	Fluorescence Visualization of Branchial Collagen Columns Embraced by Pillar Cells. Journal of Histochemistry and Cytochemistry, 2007, 55, 57-62.	2.5	12
94	O2-Filled Swimbladder Employs Monocarboxylate Transporters for the Generation of O2 by Lactate-Induced Root Effect Hemoglobin. PLoS ONE, 2012, 7, e34579.	2.5	12
95	SOLUBILIZATION AND CHARACTERIZATION OF ACTIVE ANGIOTENSIN II RECEPTORS FROM THE BOVINE ADRENAL CORTEX . Biomedical Research, 1984, 5, 9-18.	0.9	12
96	Renin Precursor and Its Activation Mechanism in Hog Kidney. Clinical Science, 1980, 59, 21s-24s.	0.0	11
97	Stimulation of Na-K-Cl cotransport in cultured vascular endothelial cells by atrial natriuretic peptide. Biochemical and Biophysical Research Communications, 1989, 159, 734-740.	2.1	11
98	Ectopic Production of Renin by Ileal Carcinoma.. Endocrinologia Japonica, 1989, 36, 117-124.	0.5	11
99	Androgen-Dependent Expression, Gene Structure, and Molecular Evolution of Guinea Pig Caltrin II, a WAP-Motif Protein1. Biology of Reproduction, 2004, 71, 1583-1590.	2.7	11
100	Cell cycle-dependent changes in tissue transglutaminase mRNA levels in bovine endothelial cells. Biochemical and Biophysical Research Communications, 1992, 187, 14-17.	2.1	10
101	Stimulation by Retinoids of the Natriuretic Peptide System of Osteoblastic MC3T3-E1 Cells. Biochemical and Biophysical Research Communications, 1996, 228, 182-186.	2.1	10
102	LOCALIZATION OF RENIN mRNA IN THE MOUSE SUBMANDIBULAR GLAND BY IN SITU HYBRIDIZATION HISTOCHEMISTRY . Biomedical Research, 1983, 4, 591-596.	0.9	10
103	Evolution of trappin genes in mammals. BMC Evolutionary Biology, 2010, 10, 31.	3.2	9
104	Identification and apical membrane localization of an electrogenic Na⁺/Ca²⁺exchanger NCX2a likely to be involved in renal Ca²⁺excretion by seawater fish. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R1427-R1439.	1.8	9
105	Mechanism of activation of particulate guanylate cyclase by atrial natriuretic peptide as deduced from radiation inactivation analysis. Biochemical and Biophysical Research Communications, 1989, 158, 603-609.	2.1	8
106	Structural analysis of natriuretic peptide receptor-C by truncation and site-directed mutagenesis. Biochemical Journal, 1997, 322, 585-590.	3.7	8
107	Identification, Evolution, and Regulation of Expression of Guinea Pig Trappin with an Unusually Long Transglutaminase Substrate Domain*. Journal of Biological Chemistry, 2005, 280, 20204-20215.	3.4	8
108	Cryptic Origin of SPAI, a Plasma Protein with a Transglutaminase Substrate Domain and the WAP Motif, Revealed by in Situ Hybridization and Immunohistochemistry. Journal of Biological Chemistry, 1996, 271, 29517-29520.	3.4	7

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109	Brain Renin. Clinical and Experimental Hypertension, 1982, 4, 607-622.	0.3	4
110	Endothelins Inhibit Mineralization of Rat Calvarial Osteoblast-Like Cells. Journal of Cardiovascular Pharmacology, 1998, 31, S521-S523.	1.9	4
111	Purification of human plasma inactive renin by immunoaffinity chromatography on profragment-specific IgG. BBA - Proteins and Proteomics, 1986, 873, 27-30.	2.1	3
112	From blood typing to a transport metabolon at a crossroad. Focus on â€œAmmonium-dependent sodium uptake in mitochondrion-rich cells of medaka (Oryzias latipes) larvaeâ€• American Journal of Physiology - Cell Physiology, 2010, 298, C209-C210.	4.6	3
113	CO-LOCALIZATION OF ANGIOTENSIN II AND RENIN IN GROWTH HORMONE-CONTAINING CELLS OF THE BOVINEÂPITUITARY . Biomedical Research, 1985, 6, 23-27.	0.9	3
114	PLASMA INACTIVE RENIN IN NORMAL SUBJECTS AND PATIENTS WITH DIABETIC NEPHROPATHY AND RENINSECRETING TUMORS: COMPARISON WITH RENAL RENIN . Biomedical Research, 1982, 3, 411-416.	0.9	2
115	High Molecular Weight Renins in Spontaneously Hypertensive Rat and Stroke-Prone Spontaneously Hypertensive Rat. International Heart Journal, 1977, 18, 571-572.	0.6	1
116	Purification and Properties of Bovine Pituitary Renin. Clinical Science, 1982, 63, 179s-181s.	0.0	0
117	Characterization of the zebrafish cx36.7 gene promoter: Its regulation of cardiac-specific expression and skeletal muscle-specific repression. Gene, 2016, 577, 265-274.	2.2	0