Hiromi Sesaki

List of Publications by Year
in descending order

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135 papers	17,895 citations	19657 61 h-index	13771 129 g-index
137 all docs	137 docs citations	137 times ranked	28581 citing authors

#	Article	IF	Citations
1	Drp1 regulates transcription of ribosomal protein genes in embryonic hearts. Journal of Cell Science, 2022, 135, .	2.0	1
2	Prevention and regression of megamitochondria and steatosis by blocking mitochondrial fusion in the liver. IScience, 2022, 25, 103996.	4.1	19
3	Depletion of oocyte dynamin-related protein 1 shows maternal-effect abnormalities in embryonic development. Science Advances, 2022, 8, .	10.3	9
4	DRP1 haploinsufficiency attenuates cardiac ischemia/reperfusion injuries. PLoS ONE, 2021, 16, e0248554.	2.5	11
5	C9orf72 regulates energy homeostasis by stabilizing mitochondrial complex I assembly. Cell Metabolism, 2021, 33, 531-546.e9.	16.2	70
6	Nuclear PTEN and p53 suppress stress-induced liver cancer through distinct mechanisms. Biochemical and Biophysical Research Communications, 2021, 549, 83-90.	2.1	10
7	Nuclear PTEN deficiency and heterozygous PTEN loss have distinct impacts on brain and lymph node size. Biochemical and Biophysical Research Communications, 2021, 555, 81-88.	2.1	2
8	Reduced Levels of Drp1 Protect against Development of Retinal Vascular Lesions in Diabetic Retinopathy. Cells, 2021, 10, 1379.	4.1	10
9	Longitudinal tracking of neuronal mitochondria delineates PINK1/Parkin-dependent mechanisms of mitochondrial recycling and degradation. Science Advances, 2021, 7, .	10.3	13
10	KARATE: PKA-induced KRAS4B-RHOA-mTORC2 supercomplex phosphorylates AKT in insulin signaling and glucose homeostasis. Molecular Cell, 2021, 81, 4622-4634.e8.	9.7	19
11	Generating a new mouse model for nuclear PTEN deficiency by a single K13R mutation. Genes To Cells, 2021, , .	1.2	2
12	Mitochondrial division, fusion and degradation. Journal of Biochemistry, 2020, 167, 233-241.	1.7	40
13	The Loss of Nuclear PTEN Increases Tumorigenesis in a Preclinical Mouse Model for Hepatocellular Carcinoma. IScience, 2020, 23, 101548.	4.1	15
14	Hippo/Mst signaling coordinates cellular quiescence with terminal maturation in iNKT cell development and fate decisions. Journal of Experimental Medicine, 2020, 217, .	8.5	15
15	Hetero-oligomerization of Rho and Ras GTPases Connects GPCR Activation to mTORC2-AKT Signaling. Cell Reports, 2020, 33, 108427.	6.4	11
16	Drp1 Tubulates the ER in a GTPase-Independent Manner. Molecular Cell, 2020, 80, 621-632.e6.	9.7	35
17	Endoplasmic reticulumâ€“associated degradation regulates mitochondrial dynamics in brown adipocytes. Science, 2020, 368, 54-60.	12.6	107
18	Loss of dynamin-related protein 1 (Drp1) does not affect epidermal development or UVB-induced apoptosis but does accelerate UVB-induced carcinogenesis. Journal of Dermatological Science, 2020, 99, 109-118.	1.9	5

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19	Asymmetrically Segregated Mitochondria Provide Cellular Memory of Hematopoietic Stem Cell Replicative History and Drive HSC Attrition. Cell Stem Cell, 2020, 26, 420-430.e6.	11.1	108
20	Novel role of dynaminâ€relatedâ€protein 1 in dynamics of ERâ€lipid droplets in adipose tissue. FASEB Journal, 2020, 34, 8265-8282.	0.5	20
21	Mitochondrial Fission Mediates Endothelial Inflammation. Hypertension, 2020, 76, 267-276.	2.7	59
22	Mitochondrial Safeguard: a stress response that offsets extreme fusion and protects respiratory function via flickeringâ€induced Oma1 activation. EMBO Journal, 2020, 39, e105074.	7.8	22
23	Drp1 Promotes KRas-Driven Metabolic Changes to Drive Pancreatic Tumor Growth. Cell Reports, 2019, 28, 1845-1859.e5.	6.4	93
24	Doxorubicinâ€induced cardiomyocyte death is mediated by unchecked mitochondrial fission and mitophagy. FASEB Journal, 2019, 33, 11096-11108.	0.5	118
25	SQSTM1/p62 promotes mitochondrial ubiquitination independently of PINK1 and PRKN/parkin in mitophagy. Autophagy, 2019, 15, 2012-2018.	9.1	93
26	Phosphorylated Rhoâ€“GDP directly activates mTORC2 kinase towards AKT through dimerization with Rasâ€“GTP to regulate cell migration. Nature Cell Biology, 2019, 21, 867-878.	10.3	58
27	Metformin Improves Mitochondrial Respiratory Activity through Activation of AMPK. Cell Reports, 2019, 29, 1511-1523.e5.	6.4	244
28	Dynamin-1â€“Like Protein Inhibition Drives Megamitochondria Formation as an Adaptive Response in Alcohol-Induced Hepatotoxicity. American Journal of Pathology, 2019, 189, 580-589.	3.8	32
29	Maintenance of Cardiolipin and Crista Structure Requires Cooperative Functions of Mitochondrial Dynamics and Phospholipid Transport. Cell Reports, 2019, 26, 518-528.e6.	6.4	48
30	Brain-specific Drp1 regulates postsynaptic endocytosis and dendrite formation independently of mitochondrial division. ELife, 2019, 8, .	6.0	26
31	Intracellular calcium is a rheostat for the STING signaling pathway. Biochemical and Biophysical Research Communications, 2018, 500, 497-503.	2.1	21
32	DISC1 regulates lactate metabolism in astrocytes: implications for psychiatric disorders. Translational Psychiatry, 2018, 8, 76.	4.8	34
33	Elevated mitochondrial activity distinguishes fibrogenic hepatic stellate cells and sensitizes for selective inhibition by mitotropic doxorubicin. Journal of Cellular and Molecular Medicine, 2018, 22, 2210-2219.	3.6	27
34	Villin-1 and Gelsolin Regulate Changes in Actin Dynamics That Affect Cell Survival Signaling Pathways and Intestinal Inflammation. Gastroenterology, 2018, 154, 1405-1420.e2.	1.3	42
35	MIRO-1 Determines Mitochondrial Shape Transition upon GPCR Activation and Ca2+ Stress. Cell Reports, 2018, 23, 1005-1019.	6.4	80
36	Reply: The expanding neurological phenotype of DNM1L-related disorders. Brain, 2018, 141, e29-e29.	7.6	5

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37	p62/sequestosome-1 knockout delays neurodegeneration induced by Drp1 loss. Neurochemistry International, 2018, 117, 77-81.	3.8	15
38	An unstructured loop that is critical for interactions of the stalk domain of Drp1 with saturated phosphatidic acid. Small GTPases, 2018, 9, 472-479.	1.6	23
39	Dynamin-Related Protein 1 Deficiency Promotes Recovery from AKI. Journal of the American Society of Nephrology: JASN, 2018, 29, 194-206.	6.1	110
40	Phosphatidic Acid and Cardiolipin Coordinate Mitochondrial Dynamics. Trends in Cell Biology, 2018, 28, 67-76.	7.9	186
41	Mitochondrial inner membrane permeabilisation enables mt <scp>DNA</scp> release during apoptosis. EMBO Journal, 2018, 37, .	7.8	313
42	Mitochondrial Stasis Reveals p62-Mediated Ubiquitination in Parkin-Independent Mitophagy and Mitigates Nonalcoholic Fatty Liver Disease. Cell Metabolism, 2018, 28, 588-604.e5.	16.2	180
43	Nuclear PTEN deficiency causes microcephaly with decreased neuronal soma size and increased seizure susceptibility. Journal of Biological Chemistry, 2018, 293, 9292-9300.	3.4	21
44	In Vivo Deletion of Î²-Cell Drp1 Impairs Insulin Secretion Without Affecting Islet Oxygen Consumption. Endocrinology, 2018, 159, 3245-3256.	2.8	32
45	Loss of MICOS complex integrity and mitochondrial damage, but not TDP-43 mitochondrial localisation, are likely associated with severity of CHCHD10-related diseases. Neurobiology of Disease, 2018, 119, 159-171.	4.4	48
46	A brain-enriched Drp1 isoform associates with lysosomes, late endosomes, and the plasma membrane. Journal of Biological Chemistry, 2018, 293, 11809-11822.	3.4	46
47	Inhibition of Drp1 protects against senecionine-induced mitochondria-mediated apoptosis in primary hepatocytes and in mice. Redox Biology, 2017, 12, 264-273.	9.0	64
48	DRP1 Suppresses Leptin and Glucose Sensing of POMC Neurons. Cell Metabolism, 2017, 25, 647-660.	16.2	84
49	Label-Free Quantification of Intracellular Mitochondrial Dynamics Using Dielectrophoresis. Analytical Chemistry, 2017, 89, 5757-5764.	6.5	52
50	Constriction of the mitochondrial inner compartment is a priming event for mitochondrial division. Nature Communications, 2017, 8, 15754.	12.8	155
51	Dynamin-Related Protein 1 Inhibition Attenuates Cardiovascular Calcification in the Presence of Oxidative Stress. Circulation Research, 2017, 121, 220-233.	4.5	88
52	<scp>OPA</scp> 1 deficiency promotes secretion of <scp>FGF</scp> 21 from muscle that prevents obesity and insulin resistance. EMBO Journal, 2017, 36, 2126-2145.	7.8	157
53	The Putative Drp1 Inhibitor mdivi-1 Is a Reversible Mitochondrial Complex I Inhibitor that Modulates Reactive Oxygen Species. Developmental Cell, 2017, 40, 583-594.e6.	7.0	406
54	Mutations in DNM1L, as in OPA1, result in dominant optic atrophy despite opposite effects on mitochondrial fusion and fission. Brain, 2017, 140, 2586-2596.	7.6	100

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55	Carbonyl cyanide 3-chlorophenylhydrazone (CCCP) suppresses STING-mediated DNA sensing pathway through inducing mitochondrial fission. Biochemical and Biophysical Research Communications, 2017, 493, 737-743.	2.1	27
56	Assay to Measure Interactions between Purified Drp1 and Synthetic Liposomes. Bio-protocol, 2017, 7, .	0.4	4
57	Mitochondrial Morphology Controls Hematopoietic Stem Cell Self-Renewal and Confers Them Divisional Memory. Blood, 2017, 130, 633-633.	1.4	1
58	Altered brain energetics induces mitochondrial fission arrest in Alzheimerâ€™s Disease. Scientific Reports, 2016, 6, 18725.	3.3	146
59	<scp>CHCHD</scp> 10 mutations promote loss of mitochondrial cristae junctions with impaired mitochondrial genome maintenance and inhibition of apoptosis. EMBO Molecular Medicine, 2016, 8, 58-72.	6.9	143
60	The novel RacE-binding protein GflB sharpens Ras activity at the leading edge of migrating cells. Molecular Biology of the Cell, 2016, 27, 1596-1605.	2.1	13
61	Mitochondrial Dynamics Impacts Stem Cell Identity and Fate Decisions by Regulating a Nuclear Transcriptional Program. Cell Stem Cell, 2016, 19, 232-247.	11.1	469
62	Parkin suppresses Drp1-independent mitochondrial division. Biochemical and Biophysical Research Communications, 2016, 475, 283-288.	2.1	41
63	Protective effects of reduced dynamin-related protein 1 against amyloid beta-induced mitochondrial dysfunction and synaptic damage in Alzheimerâ€™s disease. Human Molecular Genetics, 2016, 25, ddw330.	2.9	125
64	Identification of multiâ€copy suppressors for endoplasmic reticulumâ€mitochondria tethering proteins in Saccharomyces cerevisiae. FEBS Letters, 2016, 590, 3061-3070.	2.8	11
65	Coincident Phosphatidic Acid Interaction Restrains Drp1 in Mitochondrial Division. Molecular Cell, 2016, 63, 1034-1043.	9.7	150
66	Dynamin-Related Protein 1 Deficiency Leads to Receptor-Interacting Protein Kinase 3â€“Mediated Necroptotic Neurodegeneration. American Journal of Pathology, 2016, 186, 2798-2802.	3.8	21
67	Reduced dynamin-related protein 1 protects against phosphorylated Tau-induced mitochondrial dysfunction and synaptic damage in Alzheimerâ€™s disease. Human Molecular Genetics, 2016, 25, 4881-4897.	2.9	142
68	Methylene blue alleviates nuclear and mitochondrial abnormalities in progeria. Aging Cell, 2016, 15, 279-290.	6.7	85
69	Mitochondrial Dynamics Controls T Cell Fate through Metabolic Programming. Cell, 2016, 166, 63-76.	28.9	1,025
70	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
71	A GPCR Handles Bacterial Sensing in Chemotaxis and Phagocytosis. Developmental Cell, 2016, 36, 354-356.	7.0	5
72	Making a Division Apparatus on Mitochondria. Trends in Biochemical Sciences, 2016, 41, 209-210.	7.5	5

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73	Reply: High prevalence ofCHCHD10mutations in patients with frontotemporal dementia from China: Table 1. Brain, 2016, 139, e22-e22.	7.6	0
74	Opening the conformation is a master switch for the dual localization and phosphatase activity of PTEN. Scientific Reports, 2015, 5, 12600.	3.3	18
75	Engineering PTEN function: Membrane association and activity. Methods, 2015, 77-78, 119-124.	3.8	9
76	Reply: IsCHCHD10Pro34Ser pathogenic for frontotemporal dementia and amyotrophic lateral sclerosis?. Brain, 2015, 138, e386-e386.	7.6	3
77	Transient assembly of F-actin on the outer mitochondrial membrane contributes to mitochondrial fission. Journal of Cell Biology, 2015, 208, 109-123.	5.2	180
78	Mitochondrial division and fusion in metabolism. Current Opinion in Cell Biology, 2015, 33, 111-118.	5.4	174
79	Mitochondrial Division Is Requisite to RAS-Induced Transformation and Targeted by Oncogenic MAPK Pathway Inhibitors. Molecular Cell, 2015, 57, 521-536.	9.7	310
80	Decreasing mitochondrial fission diminishes vascular smooth muscle cell migration and ameliorates intimal hyperplasia. Cardiovascular Research, 2015, 106, 272-283.	3.8	86
81	PARK2/Parkin becomes critical when DNM1L/Drp1 is absent. Autophagy, 2015, 11, 573-574.	9.1	9
82	Reply:CHCHD10mutations in Italian patients with sporadic amyotrophic lateral sclerosis. Brain, 2015, 138, e373-e373.	7.6	1
83	Reply: A distinct clinical phenotype in a German kindred with motor neuron disease carrying aCHCHD10mutation: Table 1. Brain, 2015, 138, e377-e377.	7.6	2
84	Reply: Are CHCHD10 mutations indeed associated with familial amyotrophic lateral sclerosis?. Brain, 2014, 137, e314-e314.	7.6	9
85	Reply: Mutations in the CHCHD10 gene are a common cause of familial amyotrophic lateral sclerosis. Brain, 2014, 137, e312-e312.	7.6	3
86	Structural and functional analysis of MiD51, a dynamin receptor required for mitochondrial fission. Journal of Cell Biology, 2014, 204, 477-486.	5.2	91
87	Engineering ePTEN, an enhanced PTEN with increased tumor suppressor activities. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2684-93.	7.1	60
88	A dimeric equilibrium intermediate nucleates Drp1 reassembly on mitochondrial membranes for fission. Molecular Biology of the Cell, 2014, 25, 1905-1915.	2.1	149
89	Cyclin C: An Inducer of Mitochondrial Division Hidden in the Nucleus. Developmental Cell, 2014, 28, 112-114.	7.0	2
90	Parkinâ€independent mitophagy requires <scp>D</scp>rp1 and maintains the integrity of mammalian heart and brain. EMBO Journal, 2014, 33, 2798-2813.	7.8	361

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91	Reply: Two novel mutations in conserved codons indicate that CHCHD10 is a gene associated with motor neuron disease. Brain, 2014, 137, e310-e310.	7.6	4
92	Loss of Mitochondrial Fission Depletes Axonal Mitochondria in Midbrain Dopamine Neurons. Journal of Neuroscience, 2014, 34, 14304-14317.	3.6	165
93	Biosynthesis and roles of phospholipids in mitochondrial fusion, division and mitophagy. Cellular and Molecular Life Sciences, 2014, 71, 3767-3778.	5.4	42
94	A mitochondrial origin for frontotemporal dementia and amyotrophic lateral sclerosis through CHCHD10 involvement. Brain, 2014, 137, 2329-2345.	7.6	377
95	In vivo functions of Drp1: Lessons learned from yeast genetics and mouse knockouts. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 1179-1185.	3.8	46
96	Phospholipid Transport via Mitochondria. Traffic, 2014, 15, 933-945.	2.7	62
97	Drp1 stabilizes p53 on the mitochondria to trigger necrosis under oxidative stress conditions inÂvitro and inÂvivo. Biochemical Journal, 2014, 461, 137-146.	3.7	89
98	Tam41 Is a CDP-Diacylglycerol Synthase Required for Cardiolipin Biosynthesis in Mitochondria. Cell Metabolism, 2013, 17, 709-718.	16.2	135
99	Mitochondrial dynamics in neurodegeneration. Trends in Cell Biology, 2013, 23, 64-71.	7.9	409
100	Rho GTPases orient directional sensing in chemotaxis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4723-32.	7.1	41
101	Parasitic Nematode-Induced Modulation of Body Weight and Associated Metabolic Dysfunction in Mouse Models of Obesity. Infection and Immunity, 2013, 81, 1905-1914.	2.2	95
102	Role for Two Conserved Intermembrane Space Proteins, Ups1p and Up2p, in Intra-mitochondrial Phospholipid Trafficking. Journal of Biological Chemistry, 2012, 287, 15205-15218.	3.4	101
103	Mitochondrial division prevents neurodegeneration. Autophagy, 2012, 8, 1531-1533.	9.1	18
104	Phosphatidylethanolamine Biosynthesis in Mitochondria. Journal of Biological Chemistry, 2012, 287, 43961-43971.	3.4	42
105	Role for two conserved intermembrane space proteins, Ups1p and Ups2p, in intra-mitochondrial phospholipid trafficking.. Journal of Biological Chemistry, 2012, 287, 27450.	3.4	0
106	Myosin I Links PIP ₃ Signaling to Remodeling of the Actin Cytoskeleton in Chemotaxis. Science Signaling, 2012, 5, ra10.	3.6	65
107	Mitochondrial division ensures the survival of postmitotic neurons by suppressing oxidative damage. Journal of Cell Biology, 2012, 197, 535-551.	5.2	225
108	Defects in Mitochondrial Dynamics and Metabolomic Signatures of Evolving Energetic Stress in Mouse Models of Familial Alzheimer's Disease. PLoS ONE, 2012, 7, e32737.	2.5	225

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109	Mitochondrial Fusion and Division. FASEB Journal, 2012, 26, 103.3.	0.5	0
110	SnapShot: Mitochondrial Dynamics. Cell, 2011, 145, 1158-1158.e1.	28.9	49
111	Mitochondrial division: molecular machinery and physiological functions. Current Opinion in Cell Biology, 2011, 23, 427-434.	5.4	89
112	Charcot-Marie-Tooth-related Gene GDAP1 Complements Cell Cycle Delay at G2/M Phase in Saccharomyces cerevisiae fis1 Gene-defective Cells. Journal of Biological Chemistry, 2011, 286, 36777-36786.	3.4	34
113	Direct Membrane Association Drives Mitochondrial Fission by the Parkinson Disease-associated Protein Î±-Synuclein. Journal of Biological Chemistry, 2011, 286, 20710-20726.	3.4	499
114	Mdm35p imports Ups proteins into the mitochondrial intermembrane space by functional complex formation. EMBO Journal, 2010, 29, 2875-2887.	7.8	68
115	Proteomic identification of phosphatidylinositol (3,4,5) triphosphate-binding proteins in Dictyostelium discoideum. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11829-11834.	7.1	33
116	The dynamin-related GTPase Drp1 is required for embryonic and brain development in mice. Journal of Cell Biology, 2009, 186, 805-816.	5.2	556
117	Tim23â€“Tim50 pair coordinates functions of translocators and motor proteins in mitochondrial protein import. Journal of Cell Biology, 2009, 184, 129-141.	5.2	125
118	Ups1p and Ups2p antagonistically regulate cardiolipin metabolism in mitochondria. Journal of Cell Biology, 2009, 185, 1029-1045.	5.2	149
119	Regulation of Ammonia Homeostasis by the Ammonium Transporter AmtA in Dictyostelium discoideum. Eukaryotic Cell, 2007, 6, 2419-2428.	3.4	13
120	Yeast Mitochondrial Division and Distribution Require the Cortical Num1 Protein. Developmental Cell, 2007, 12, 363-375.	7.0	95
121	Regulation of mitochondrial fusion and division. Trends in Cell Biology, 2007, 17, 563-569.	7.9	209
122	Ahead of the curve: mitochondrial fusion and phospholipase D. Nature Cell Biology, 2006, 8, 1215-1217.	10.3	6
123	Ups1p, a conserved intermembrane space protein, regulates mitochondrial shape and alternative topogenesis of Mgm1p. Journal of Cell Biology, 2006, 173, 651-658.	5.2	92
124	Ugo1p Links the Fzo1p and Mgm1p GTPases for Mitochondrial Fusion. Journal of Biological Chemistry, 2004, 279, 28298-28303.	3.4	161
125	Mitochondrial building blocks. Trends in Cell Biology, 2004, 14, 215-218.	7.9	17
126	Cells lacking Pcp1p/Ugo2p, a rhomboid-like protease required for Mgm1p processing, lose mtDNA and mitochondrial structure in a Dnm1p-dependent manner, but remain competent for mitochondrial fusion. Biochemical and Biophysical Research Communications, 2003, 308, 276-283.	2.1	122

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127	Mgm1p, a Dynamin-related GTPase, Is Essential for Fusion of the Mitochondrial Outer Membrane. Molecular Biology of the Cell, 2003, 14, 2342-2356.	2.1	239
128	UGO1 Encodes an Outer Membrane Protein Required for Mitochondrial Fusion. Journal of Cell Biology, 2001, 152, 1123-1134.	5.2	215
129	Yeast mitochondrial dynamics: Fusion, division, segregation, and shape. Microscopy Research and Technique, 2000, 51, 573-583.	2.2	125
130	Division versus Fusion: Dnm1p and Fzo1p Antagonistically Regulate Mitochondrial Shape. Journal of Cell Biology, 1999, 147, 699-706.	5.2	498
131	The Cell Adhesion Molecule DdCAD-1 in Dictyostelium Is Targeted to the Cell Surface by a Nonclassical Transport Pathway Involving Contractile Vacuoles. Journal of Cell Biology, 1997, 138, 939-951.	5.2	62
132	Secretion of Slime, the Extracellular Matrix of the Plasmodium, as Visualized with a Fluorescent Probe and Its Correlation with Locomotion on the Substratum.. Cell Structure and Function, 1997, 22, 279-289.	1.1	8
133	Novel Redistribution of the Ca 2+ -Dependent Cell Adhesion Molecule DdCAD-1 during Development of Dictyostelium discoideum. Developmental Biology, 1996, 177, 504-516.	2.0	31
134	Molecular Cloning and Characterization of DdCAD-1, a Ca2+-dependent Cell-Cell Adhesion Molecule, in. Journal of Biological Chemistry, 1996, 271, 16399-16408.	3.4	72
135	Twenty-Eight-Kilodalton Phosphorylatable Calcium- and Lipid-Binding Proteins Purified from Physarum Plasmodium. Journal of Biochemistry, 1992, 112, 269-276.	1.7	2