Yasunori Hayashi

List of Publications by Year
in descending order

102	14,856	53660 45	38300 95
papers	citations	h-index	g-index

118	118	118	13589
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Driving AMPA Receptors into Synapses by LTP and CaMKII: Requirement for GluR1 and PDZ Domain Interaction. Science, 2000, 287, 2262-2267.	6.0	1,376
2	The Importance of Dendritic Mitochondria in the Morphogenesis and Plasticity of Spines and Synapses. Cell, 2004, 119, 873-887.	13.5	1,297
3	Rapid Spine Delivery and Redistribution of AMPA Receptors After Synaptic NMDA Receptor Activation. Science, 1999, 284, 1811-1816.	6.0	1,186
4	Subunit-Specific Rules Governing AMPA Receptor Trafficking to Synapses in Hippocampal Pyramidal Neurons. Cell, 2001, 105, 331-343.	13.5	978
5	Rapid and persistent modulation of actin dynamics regulates postsynaptic reorganization underlying bidirectional plasticity. Nature Neuroscience, 2004, 7, 1104-1112.	7.1	728
6	Cloning and expression of cDNA for a human thromboxane A2 receptor. Nature, 1991, 349, 617-620.	13.7	700
7	Targeting quantum dots to surface proteins in living cells with biotin ligase. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7583-7588.	3.3	516
8	Structural and Molecular Remodeling of Dendritic Spine Substructures during Long-Term Potentiation. Neuron, 2014, 82, 444-459.	3.8	486
9	Postnatal synaptic potentiation: Delivery of GluR4-containing AMPA receptors by spontaneous activity. Nature Neuroscience, 2000, 3, 1098-1106.	7.1	371
10	LTP mechanisms: from silence to four-lane traffic. Current Opinion in Neurobiology, 2000, 10, 352-357.	2.0	363
11	Role of a metabotropic glutamate receptor in synaptic modulation in the accessory olfactory bulb. Nature, 1993, 366, 687-690.	13.7	354
12	Structural plasticity of dendritic spines. Current Opinion in Neurobiology, 2012, 22, 383-388.	2.0	329
13	The Postsynaptic Density Proteins Homer and Shank Form a Polymeric Network Structure. Cell, 2009, 137, 159-171.	13.5	324
14	Analysis of agonist and antagonist activities of phenylglycine derivatives for different cloned metabotropic glutamate receptor subtypes. Journal of Neuroscience, 1994, 14, 3370-3377.	1.7	322
15	A Top-Down Cortical Circuit for Accurate Sensory Perception. Neuron, 2015, 86, 1304-1316.	3.8	308
16	The role of CaMKII as an F-actin-bundling protein crucial for maintenance of dendritic spine structure. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6418-6423.	3.3	266
17	Retrograde modulation of presynaptic release probability through signaling mediated by PSD-95â€“neuroligin. Nature Neuroscience, 2007, 10, 186-195.	7.1	252
18	QZ1 and QZ2:Â Rapid, Reversible Quinoline-Derivatized Fluoresceins for Sensing Biological Zn(II). Journal of the American Chemical Society, 2005, 127, 16812-16823.	6.6	251

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19	Synaptic Accumulation of PSD-95 and Synaptic Function Regulated by Phosphorylation of Serine-295 of PSD-95. Neuron, 2007, 56, 488-502.	3.8	235
20	Inhibition of Dendritic Spine Morphogenesis and Synaptic Transmission by Activity-Inducible Protein Homer1a. Journal of Neuroscience, 2003, 23, 6327-6337.	1.7	232
21	Quaternary Structure, Protein Dynamics, and Synaptic Function of SAP97 Controlled by L27 Domain Interactions. Neuron, 2004, 44, 453-467.	3.8	225
22	Motoneuron-Specific Expression of NR3B, a Novel NMDA-Type Glutamate Receptor Subunit That Works in a Dominant-Negative Manner. Journal of Neuroscience, 2001, 21, RC185-RC185.	1.7	206
23	Dendritic Spine Geometry: Functional Implication and Regulation. Neuron, 2005, 46, 529-532.	3.8	195
24	Agonist analysis of 2â€(carboxycyclopropyl)glycine isomers for cloned metabotropic glutamate receptor subtypes expressed in Chinese hamster ovary cells. British Journal of Pharmacology, 1992, 107, 539-543.	2.7	184
25	Entrapment of Migrating Hippocampal Neural Cells in Three-Dimensional Peptide Nanofiber Scaffold. Tissue Engineering, 2004, 10, 643-655.	4.9	170
26	Mouse thromboxane A2 receptor: cDNA cloning, expression and Northern blot analysis. Biochemical and Biophysical Research Communications, 1992, 184, 1197-1203.	1.0	158
27	Induction of an olfactory memory by the activation of a metabotropic glutamate receptor. Science, 1994, 265, 262-264.	6.0	152
28	Two-Photon Imaging in Living Brain Slices. Methods, 1999, 18, 231-239.	1.9	150
29	The Roles of CaMKII and F-Actin in the Structural Plasticity of Dendritic Spines: A Potential Molecular Identity of a Synaptic Tag?. Physiology, 2009, 24, 357-366.	1.6	140
30	Visualization of Synaptic Ca2+ /Calmodulin-Dependent Protein Kinase II Activity in Living Neurons. Journal of Neuroscience, 2005, 25, 3107-3112.	1.7	138
31	ZP8, a Neuronal Zinc Sensor with Improved Dynamic Range; Imaging Zinc in Hippocampal Slices with Two-Photon Microscopy. Inorganic Chemistry, 2004, 43, 6774-6779.	1.9	117
32	A Temporary Gating of Actin Remodeling during Synaptic Plasticity Consists of the Interplay between the Kinase and Structural Functions of CaMKII. Neuron, 2015, 87, 813-826.	3.8	115
33	Orchestrated ensemble activities constitute a hippocampal memory engram. Nature Communications, 2019, 10, 2637.	5.8	109
34	Distinct Sites of Opiate Reward and Aversion within the Midbrain Identified Using a Herpes Simplex Virus Vector Expressing GluR1. Journal of Neuroscience, 2000, 20, RC62-RC62.	1.7	92
35	Structureâ€activity relationships of new agonists and antagonists of different metabotropic glutamate receptor subtypes. British Journal of Pharmacology, 1996, 117, 1493-1503.	2.7	91
36	Tetrameric Hub Structure of Postsynaptic Scaffolding Protein Homer. Journal of Neuroscience, 2006, 26, 8492-8501.	1.7	85

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37	Functional Dynamics of Polo-Like Kinase 1 at the Centrosome. Molecular and Cellular Biology, 2009, 29, 3134-3150.	1.1	82
38	Reciprocal Activation within a Kinase-Effector Complex Underlying Persistence of Structural LTP. Neuron, 2019, 102, 1199-1210.e6.	3.8	82
39	Stepwise synaptic plasticity events drive the early phase of memory consolidation. Science, 2021, 374, 857-863.	6.0	67
40	Effects of Choline Administration on In Vivo Release and Biosynthesis of Acetylcholine in the Rat Striatum as Studied by In Vivo Brain Microdialysis. Journal of Neurochemistry, 1990, 54, 533-539.	2.1	66
41	CaMKII activation persistently segregates postsynaptic proteins via liquid phase separation. Nature Neuroscience, 2021, 24, 777-785.	7.1	65
42	The Ca²⁺ and Rho GTPase signaling pathways underlying activityâ€dependent actin remodeling at dendritic spines. Cytoskeleton, 2012, 69, 545-554.	1.0	61
43	Brain-derived neurotrophic factor signal enhances and maintains the expression of AMPA receptor-associated PDZ proteins in developing cortical neurons. Developmental Biology, 2003, 263, 216-230.	0.9	57
44	NR2 to NR3B subunit switchover of NMDA receptors in early postnatal motoneurons. European Journal of Neuroscience, 2005, 21, 1432-1436.	1.2	55
45	Stoichiometry and Phosphoisotypes of Hippocampal AMPA-Type Glutamate Receptor Phosphorylation. Neuron, 2015, 85, 60-67.	3.8	55
46	PIP3 Regulates Spinule Formation in Dendritic Spines during Structural Long-Term Potentiation. Journal of Neuroscience, 2013, 33, 11040-11047.	1.7	45
47	Distinct Mechanisms of Over-Representation of Landmarks and Rewards in the Hippocampus. Cell Reports, 2020, 32, 107864.	2.9	45
48	Genetic ablation of NMDA receptor subunit NR3B in mouse reveals motoneuronal and nonmotoneuronal phenotypes. European Journal of Neuroscience, 2007, 26, 1407-1420.	1.2	40
49	Molecular mechanism of hippocampal long-term potentiation â€“ Towards multiscale understanding of learning and memory. Neuroscience Research, 2022, 175, 3-15.	1.0	40
50	Liquid-Liquid Phase Separation in Physiology and Pathophysiology of the Nervous System. Journal of Neuroscience, 2021, 41, 834-844.	1.7	39
51	A quick and simple FISH protocol with hybridization-sensitive fluorescent linear oligodeoxynucleotide probes. Rna, 2012, 18, 166-175.	1.6	38
52	Catching the engram: strategies to examine the memory trace. Molecular Brain, 2012, 5, 32.	1.3	37
53	Interplay of enzymatic and structural functions of Ca<scp>MKII</scp> in longâ€term potentiation. Journal of Neurochemistry, 2016, 139, 959-972.	2.1	36
54	Activation of sodiumâ€dependent glutamate transporters regulates the morphological aspects of oligodendrocyte maturation via signaling through calcium/calmodulinâ€dependent kinase IIÎ²'s actinâ€binding/â€stabilizing domain. Glia, 2014, 62, 1543-1558.	2.5	35

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55	Hippocampus-Dependent Goal Localization by Head-Fixed Mice in Virtual Reality. ENeuro, 2017, 4, ENEURO.0369-16.2017.	0.9	35
56	Calcium- and calmodulin-dependent phosphorylation of AMPA type glutamate receptor subunits by endogenous protein kinases in the post-synaptic density. Molecular Brain Research, 1997, 46, 338-342.	2.5	34
57	Genetically encoded probe for fluorescence lifetime imaging of CaMKII activity. Biochemical and Biophysical Research Communications, 2008, 369, 519-525.	1.0	34
58	Introduction of Green Fluorescent Protein (GFP) into Hippocampal Neurons through Viral Infection. Cold Spring Harbor Protocols, 2010, 2010, pdb.prot5406.	0.2	33
59	Functional interaction of prostaglandin E receptor EP3 subtype with guanine nucleotide-binding proteins, showing low-affinity ligand binding. Biochimica Et Biophysica Acta - Molecular Cell Research, 1993, 1175, 343-350.	1.9	31
60	Drebrin-Homer Interaction at An Atomic Scale. Structure, 2019, 27, 3-5.	1.6	31
61	Two Functionally Distinct Serotonergic Projections into Hippocampus. Journal of Neuroscience, 2020, 40, 4936-4944.	1.7	29
62	Experience-dependent regulation of CaMKII activity within single visual cortex synapses in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 21241-21246.	3.3	28
63	Long-term potentiation: two pathways meet at neurogranin. EMBO Journal, 2009, 28, 2859-2860.	3.5	27
64	Generation and Imaging of Transgenic Mice that Express G-CaMP7 under a Tetracycline Response Element. PLoS ONE, 2015, 10, e0125354.	1.1	26
65	Structure of monomeric fullâ€length <scp>ARC</scp> sheds light on molecular flexibility, protein interactions, and functional modalities. Journal of Neurochemistry, 2018, 147, 323-343.	2.1	26
66	Enhancement of In Vivo Tyrosine Hydroxylation in the Rat Adrenal Gland Under Hypoxic Conditions. Journal of Neurochemistry, 1990, 54, 1115-1121.	2.1	25
67	Application of FRET probes in the analysis of neuronal plasticity. Frontiers in Neural Circuits, 2013, 7, 163.	1.4	25
68	Arc selfâ€association and formation of virusâ€like capsids are mediated by an Nâ€terminal helical coil motif. FEBS Journal, 2021, 288, 2930-2955.	2.2	25
69	Sublayer- and cell-type-specific neurodegenerative transcriptional trajectories in hippocampal sclerosis. Cell Reports, 2021, 35, 109229.	2.9	20
70	Motoneuron-specific NR3B gene. Neurology, 2008, 70, 666-676.	1.5	19
71	Shank3 Binds to and Stabilizes the Active Form of Rap1 and HRas GTPases via Its NTD-ANK Tandem with Distinct Mechanisms. Structure, 2020, 28, 290-300.e4.	1.6	18
72	Visualization of F-actin and G-actin equilibrium using fluorescence resonance energy transfer (FRET) in cultured cells and neurons in slices. Nature Protocols, 2006, 1, 911-919.	5.5	17

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73	A Naturally Occurring Null Variant of the NMDA Type Glutamate Receptor NR3B Subunit Is a Risk Factor of Schizophrenia. PLoS ONE, 2015, 10, e0116319.	1.1	15
74	CaMKII binds both substrates and activators at the active site. Cell Reports, 2022, 40, 111064.	2.9	15
75	A nonisotopic method for determination of the in vivo activities of tyrosine hydroxylase in the rat adrenal gland. Analytical Biochemistry, 1988, 168, 176-183.	1.1	14
76	In vivo two-photon imaging of striatal neuronal circuits in mice. Neurobiology of Learning and Memory, 2016, 135, 146-151.	1.0	14
77	Regulation of synaptic nanodomain by liquidâ€“liquid phase separation: A novel mechanism of synaptic plasticity. Current Opinion in Neurobiology, 2021, 69, 84-92.	2.0	14
78	The role of CaMKII-Tiam1 complex on learning and memory. Neurobiology of Learning and Memory, 2019, 166, 107070.	1.0	13
79	Shootin1a-mediated actin-adhesion coupling generates force to trigger structural plasticity of dendritic spines. Cell Reports, 2021, 35, 109130.	2.9	12
80	Roles of Neuronal Activity-Induced Gene Products in Hebbian and Homeostatic Synaptic Plasticity, Tagging, and Capture. Advances in Experimental Medicine and Biology, 2012, 970, 335-354.	0.8	11
81	Modality-Specific Impairment of Hippocampal CA1 Neurons of Alzheimerâ€™s Disease Model Mice. Journal of Neuroscience, 2021, 41, 5315-5329.	1.7	11
82	Inhibiting the Activity of CA1 Hippocampal Neurons Prevents the Recall of Contextual Fear Memory in Inducible ArchT Transgenic Mice. PLoS ONE, 2015, 10, e0130163.	1.1	11
83	Effects of hypoxia on contractile responses of rabbit aortic strips to transmural electrical stimulation. Naunyn-Schmiedeberg's Archives of Pharmacology, 1988, 338, 275-81.	1.4	9
84	Effects of hypoxia on noradrenaline release and neuronal reuptake in isolated rabbit thoracic aortic strips. Naunyn-Schmiedeberg's Archives of Pharmacology, 1989, 339, 503-508.	1.4	8
85	Multiple coordinated cellular dynamics mediate <scp>CA1</scp> map plasticity. Hippocampus, 2021, 31, 235-243.	0.9	8
86	ERK5 Phosphorylates Kv4.2 and Inhibits Inactivation of the A-Type Current in PC12 Cells. International Journal of Molecular Sciences, 2018, 19, 2008.	1.8	7
87	Autophosphorylation of F-actin binding domain of CaMKIIÎ² is required for fear learning. Neurobiology of Learning and Memory, 2019, 157, 86-95.	1.0	7
88	CaMKII: the Swiss army knife of synaptic plasticity. Journal of Physiology, 2014, 592, 4807-4808.	1.3	5
89	Wide and Deep Imaging of Neuronal Activities by a Wearable NeuroImager Reveals Premotor Activity in the Whole Motor Cortex. Scientific Reports, 2019, 9, 8366.	1.6	5
90	Asian promise: the state and future of collaborations in neuroscience. Nature Reviews Neuroscience, 2008, 9, 881-884.	4.9	3

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91	Building Bridges through Science. Neuron, 2017, 96, 730-735.	3.8	2
92	Synaptic Accumulation of PSD-95 and Synaptic Function Regulated by Phosphorylation of Serine-295 of PSD-95. Neuron, 2008, 57, 326-327.	3.8	1
93	Photomarking Relocalization Technique for Correlated Two-Photon and Electron Microcopy Imaging of Single Stimulated Synapses. Methods in Molecular Biology, 2017, 1538, 185-214.	0.4	1
94	Dynamism of Postsynaptic Proteins as the Mechanism of Synaptic Plasticity. , 2003, , 45-58.		1
95	Effects of hypoxia on mechanisms of adrenergic transmission and contraction of rabbit aorta. The Japanese Journal of Pharmacology, 1987, 43, 66.	1.2	0
96	Effects of hypoxia on turnover rates of dopamine, 3,4-dihydroxyphenylacetic acid and 3-methoxytyramine in the rat striatum. The Japanese Journal of Pharmacology, 1987, 43, 261.	1.2	0
97	1TA3-02 The Postsynaptic Density Proteins Homer and Shank Form a Polymeric Network Structure(The) Tj ETQq1 1 0.784314 rgBT /Ove	0.0	0
98	In vivo two-photon imaging of hippocampal circuit structure and function in mice. Neuroscience Research, 2010, 68, e446.	1.0	0
99	Synapse reorganization--a new partnership revealed. EMBO Journal, 2014, 33, 1292-4.	3.5	0
100	A Temporary Gating of Actin Remodeling during Synaptic Plasticity Consists of the Interplay between the Kinase and Structural Functions of CaMKII. Neuron, 2015, 88, 433.	3.8	0
101	Cover Image, Volume 31, Issue 3. Hippocampus, 2021, 31, C1.	0.9	0
102	Transsynaptic Regulation of Presynaptic Release Machinery in Central Synapses by Cell Adhesion Molecules. , 2008, , 315-326.		0