

Takuya Hayashi

List of Publications by Year in descending order

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107
papers

5,075
citations

101535

36
h-index

98792

67
g-index

119
all docs

119
docs citations

119
times ranked

7254
citing authors

#	ARTICLE	IF	CITATIONS
1	Human iPSC cell-derived dopaminergic neurons function in a primate Parkinson's disease model. <i>Nature</i> , 2017, 548, 592-596.	27.8	528
2	Dopaminergic neurons generated from monkey embryonic stem cells function in a Parkinson primate model. <i>Journal of Clinical Investigation</i> , 2005, 115, 102-109.	8.2	418
3	Mechanisms underlying gait disturbance in Parkinson's disease. <i>Brain</i> , 1999, 122, 1271-1282.	7.6	266
4	Direct Comparison of Autologous and Allogeneic Transplantation of iPSC-Derived Neural Cells in the Brain of a Nonhuman Primate. <i>Stem Cell Reports</i> , 2013, 1, 283-292.	4.8	233
5	Dorsolateral prefrontal and orbitofrontal cortex interactions during self-control of cigarette craving. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 4422-4427.	7.1	206
6	Circulating CD34-Positive Cells Provide an Index of Cerebrovascular Function. <i>Circulation</i> , 2004, 109, 2972-2975.	1.6	186
7	Transient Neural Activity in the Medial Superior Frontal Gyrus and Precuneus Time Locked with Attention Shift between Object Features. <i>NeuroImage</i> , 1999, 10, 193-199.	4.2	178
8	MHC matching improves engraftment of iPSC-derived neurons in non-human primates. <i>Nature Communications</i> , 2017, 8, 385.	12.8	178
9	Neurite imaging reveals microstructural variations in human cerebral cortical gray matter. <i>NeuroImage</i> , 2018, 182, 488-499.	4.2	164
10	Prolonged Maturation Culture Favors a Reduction in the Tumorigenicity and the Dopaminergic Function of Human ESC-Derived Neural Cells in a Primate Model of Parkinson's Disease. <i>Stem Cells</i> , 2012, 30, 935-945.	3.2	155
11	Cerebral cortical folding, parcellation, and connectivity in humans, nonhuman primates, and mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26173-26180.	7.1	130
12	Survival of Human Induced Pluripotent Stem Cell-Derived Midbrain Dopaminergic Neurons in the Brain of a Primate Model of Parkinson's Disease. <i>Journal of Parkinson's Disease</i> , 2011, 1, 395-412.	2.8	110
13	Long-term observation of auto-cell transplantation in non-human primate reveals safety and efficiency of bone marrow stromal cell-derived Schwann cells in peripheral nerve regeneration. <i>Experimental Neurology</i> , 2010, 223, 537-547.	4.1	107
14	Accelerating the Evolution of Nonhuman Primate Neuroimaging. <i>Neuron</i> , 2020, 105, 600-603.	8.1	92
15	Endogenous dopamine release induced by repetitive transcranial magnetic stimulation over the primary motor cortex: an [¹¹ C]raclopride positron emission tomography study in anesthetized macaque monkeys. <i>Biological Psychiatry</i> , 2004, 55, 484-489.	1.3	91
16	Temporal Plasticity Involved in Recovery from Manual Dexterity Deficit after Motor Cortex Lesion in Macaque Monkeys. <i>Journal of Neuroscience</i> , 2015, 35, 84-95.	3.6	81
17	Rapid Quantitative Measurement of CMRO ₂ and CBF by Dual Administration of ¹⁵ O-Labeled Oxygen and Water During a Single PET Scan—a Validation Study and Error Analysis in Anesthetized Monkeys. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2005, 25, 1209-1224.	4.3	76
18	An acute psychosocial stress enhances the neural response to smoking cues. <i>Brain Research</i> , 2009, 1293, 40-48.	2.2	74

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19	Motor recovery and microstructural change in rubro-spinal tract in subcortical stroke. <i>NeuroImage: Clinical</i> , 2014, 4, 201-208.	2.7	72
20	A Theoretical Model of Oxygen Delivery and Metabolism for Physiologic Interpretation of Quantitative Cerebral Blood Flow and Metabolic Rate of Oxygen. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2003, 23, 1314-1323.	4.3	67
21	Towards HCP-Style macaque connectomes: 24-Channel 3T multi-array coil, MRI sequences and preprocessing. <i>NeuroImage</i> , 2020, 215, 116800.	4.2	67
22	Establishment of In Vivo Brain Imaging Method in Conscious Mice. <i>Journal of Nuclear Medicine</i> , 2010, 51, 1068-1075.	5.0	66
23	Atrophy of the Corpus Callosum, Cortical Hypometabolism, and Cognitive Impairment in Corticobasal Degeneration. <i>Archives of Neurology</i> , 1998, 55, 609.	4.5	65
24	Gene Transfer of Hepatocyte Growth Factor Gene Improves Learning and Memory in the Chronic Stage of Cerebral Infarction. <i>Hypertension</i> , 2006, 47, 742-751.	2.7	65
25	Autologous mesenchymal stem cell-derived dopaminergic neurons function in parkinsonian macaques. <i>Journal of Clinical Investigation</i> , 2013, 123, 272-284.	8.2	63
26	Molecular, Functional, and Structural Imaging of Major Depressive Disorder. <i>Neuroscience Bulletin</i> , 2016, 32, 273-285.	2.9	62
27	Long-term effect of motor cortical repetitive transcranial magnetic stimulation induces. <i>Annals of Neurology</i> , 2004, 56, 77-85.	5.3	61
28	Neural activity during attention shifts between object features. <i>NeuroReport</i> , 1998, 9, 2633-2638.	1.2	58
29	The nonhuman primate neuroimaging and neuroanatomy project. <i>NeuroImage</i> , 2021, 229, 117726.	4.2	57
30	Diffusion Tensor Model links to Neurite Orientation Dispersion and Density Imaging at high b-value in Cerebral Cortical Gray Matter. <i>Scientific Reports</i> , 2019, 9, 12246.	3.3	49
31	Quantitative mapping of basal and vasoreactive cerebral blood flow using split-dose 123I-iodoamphetamine and single photon emission computed tomography. <i>NeuroImage</i> , 2006, 33, 1126-1135.	4.2	45
32	Absolute quantitation of myocardial blood flow with 201Tl and dynamic SPECT in canine: optimisation and validation of kinetic modelling. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2008, 35, 896-905.	6.4	45
33	Parametric imaging of myocardial blood flow with 15O-water and PET using the basis function method. <i>Journal of Nuclear Medicine</i> , 2005, 46, 1219-24.	5.0	45
34	Rapid Quantitative <i>CBF</i> and <i>CMRO₂</i> Measurements from a Single <i>PET</i> Scan with Sequential Administration of Dual ¹⁵ O-Labeled Tracers. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 440-448.	4.3	41
35	An Alteration in the Lateral Geniculate Nucleus of Experimental Glaucoma Monkeys: In vivo Positron Emission Tomography Imaging of Glial Activation. <i>PLoS ONE</i> , 2012, 7, e30526.	2.5	40
36	Evaluation of a commercial PET tomograph-based system for the quantitative assessment of <i>rCBF</i> , <i>rOEF</i> and <i>rCMRO₂</i> by using sequential administration of 15O-labeled compounds. <i>Annals of Nuclear Medicine</i> , 2002, 16, 317-327.	2.2	37

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37	Brain/MINDS beyond human brain MRI project: A protocol for multi-level harmonization across brain disorders throughout the lifespan. <i>NeuroImage: Clinical</i> , 2021, 30, 102600.	2.7	34
38	Separation of input function for rapid measurement of quantitative CMRO ₂ and CBF in a single PET scan with a dual tracer administration method. <i>Physics in Medicine and Biology</i> , 2007, 52, 1893-1908.	3.0	33
39	Use of a compact pixellated gamma camera for small animal pinhole SPECT imaging. <i>Annals of Nuclear Medicine</i> , 2006, 20, 409-416.	2.2	32
40	Delayed Postischemic Treatment With Fluvastatin Improved Cognitive Impairment After Stroke in Rats. <i>Stroke</i> , 2007, 38, 3251-3258.	2.0	32
41	Effects of patient movement on measurements of myocardial blood flow and viability in resting ¹⁵ O-water PET studies. <i>Journal of Nuclear Cardiology</i> , 2012, 19, 524-533.	2.1	29
42	A new reconstruction strategy for image improvement in pinhole SPECT. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2004, 31, 1166-72.	6.4	27
43	Scanâ€rescan and inter-vendor reproducibility of neurite orientation dispersion and density imaging metrics. <i>Neuroradiology</i> , 2020, 62, 483-494.	2.2	26
44	Neuronal nitric oxide has a role as a perfusion regulator and a synaptic modulator in cerebellum but not in neocortex during somatosensory stimulationâ€An animal PET study. <i>Neuroscience Research</i> , 2002, 44, 155-165.	1.9	25
45	Comparison of Striatal Dopamine D2 Receptors in Parkinson's Disease and Progressive Supranuclear Palsy Patients Using [¹²³ I] Iodobenzofuran Singleâ€Photon Emission Computed Tomography. <i>Journal of Neuroimaging</i> , 2002, 12, 316-324.	2.0	25
46	Objective and quantitative evaluation of motor function in a monkey model of Parkinson's disease. <i>Journal of Neuroscience Methods</i> , 2010, 190, 198-204.	2.5	25
47	Application of a cell microarray chip system for accurate, highly sensitive and rapid diagnosis for malaria in Uganda. <i>Scientific Reports</i> , 2016, 6, 30136.	3.3	24
48	A Physiologic Model for Recirculation Water Correction in CMRO ₂ Assessment with ¹⁵ O ₂ Inhalation PET. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 355-364.	4.3	23
49	Comparative connectomics of the primate social brain. <i>NeuroImage</i> , 2021, 245, 118693.	4.2	23
50	Minimal specifications for non-human primate MRI: Challenges in standardizing and harmonizing data collection. <i>NeuroImage</i> , 2021, 236, 118082.	4.2	22
51	Toward next-generation primate neuroscience: A collaboration-based strategic plan for integrative neuroimaging. <i>Neuron</i> , 2022, 110, 16-20.	8.1	22
52	Empirical transmit field bias correction of T1w/T2w myelin maps. <i>NeuroImage</i> , 2022, 258, 119360.	4.2	20
53	Linkage Between the Midline Cortical Serotonergic System and Social Behavior Traits: Positron Emission Tomography Studies of Common Marmosets. <i>Cerebral Cortex</i> , 2013, 23, 2136-2145.	2.9	19
54	Premotor Cortical-Cerebellar Reorganization in a Macaque Model of Primary Motor Cortical Lesion and Recovery. <i>Journal of Neuroscience</i> , 2019, 39, 8484-8496.	3.6	19

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55	Low Immunogenicity and Immunosuppressive Properties of Human ESC- and iPSC-Derived Retinas. <i>Stem Cell Reports</i> , 2021, 16, 851-867.	4.8	19
56	Cerebral glucose metabolism in unilateral entorhinal cortex-lesioned rats. <i>NeuroReport</i> , 1999, 10, 2113-2118.	1.2	18
57	Issues in measuring glucose metabolism of rat brain using PET: the effect of Harderian glands on the frontal lobe. <i>Neuroscience Letters</i> , 1998, 255, 99-102.	2.1	17
58	Quantitative evaluation of changes in binding potential with a simplified reference tissue model and multiple injections of [¹¹ C]raclopride. <i>NeuroImage</i> , 2009, 47, 1639-1648.	4.2	17
59	Glucose metabolism in the rat frontal cortex recovered without the recovery of choline acetyltransferase activity after lesioning of the nucleus basalis magnocellularis. <i>Neuroscience Letters</i> , 2000, 280, 9-12.	2.1	14
60	Sensory stimulation accelerates dopamine release in the basal ganglia. <i>Brain Research</i> , 2004, 1026, 179-184.	2.2	13
61	Selective Cerebral Hematocrit Decrease in the Centrum Semiovale after Carotid Artery Occlusion: A PET Study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 1999, 19, 109-114.	4.3	12
62	Use of a clinical MRI scanner for preclinical research on rats. <i>Radiological Physics and Technology</i> , 2009, 2, 13-21.	1.9	11
63	Development of motion correction technique for cardiac ¹⁵ O-water PET study using an optical motion tracking system. <i>Annals of Nuclear Medicine</i> , 2010, 24, 1-11.	2.2	11
64	Association between affective temperaments and regional gray matter volume in healthy subjects. <i>Journal of Affective Disorders</i> , 2014, 155, 169-173.	4.1	11
65	Understanding of cerebral energy metabolism by dynamic living brain slice imaging system with [¹⁸ F]FDG. <i>Neuroscience Research</i> , 2005, 52, 357-361.	1.9	10
66	Sensitivity of kinetic macro parameters to changes in dopamine synthesis, storage, and metabolism: A simulation study for [¹⁸ F]FDOPA PET by a model with detailed dopamine pathway. <i>Synapse</i> , 2011, 65, 751-762.	1.2	10
67	Quantification of regional cerebral blood flow in rats using an arteriovenous shunt and micro-PET. <i>Nuclear Medicine and Biology</i> , 2012, 39, 730-741.	0.6	10
68	Kinetics of neurodegeneration based on a risk-related biomarker in animal model of glaucoma. <i>Molecular Neurodegeneration</i> , 2013, 8, 4.	10.8	10
69	Visualization of drug translocation in the nasal cavity and pharmacokinetic analysis on nasal drug absorption using positron emission tomography in the rat. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2016, 99, 45-53.	4.3	10
70	Anatomical variability, multi-modal coordinate systems, and precision targeting in the marmoset brain. <i>NeuroImage</i> , 2022, 250, 118965.	4.2	10
71	The effect of sequential lesioning in the basal forebrain on cerebral cortical glucose metabolism in rats. An animal positron emission tomography study. <i>Brain Research</i> , 1999, 837, 75-82.	2.2	9
72	Enhanced carbonyl stress and disrupted white matter integrity in schizophrenia. <i>Schizophrenia Research</i> , 2020, 223, 242-248.	2.0	9

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73	Measurement of Density and Affinity for Dopamine D2 Receptors by a Single Positron Emission Tomography Scan with Multiple Injections of [¹¹ C]raclopride. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 663-673.	4.3	8
74	Development of a highly sensitive, quantitative, and rapid detection system for Plasmodium falciparum-infected red blood cells using a fluorescent blue-ray optical system. <i>Biosensors and Bioelectronics</i> , 2019, 132, 375-381.	10.1	8
75	Quantification of regional myocardial oxygen metabolism in normal pigs using positron emission tomography with injectable ¹⁵ O-O ₂ . <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2010, 37, 377-385.	6.4	7
76	Quantitative assessment of regional cerebral blood flow by dynamic susceptibility contrast-enhanced MRI, without the need for arterial blood signals. <i>Physics in Medicine and Biology</i> , 2012, 57, 7873-7892.	3.0	7
77	Development of a quantitative, portable, and automated fluorescent blue-ray device-based malaria diagnostic equipment with an on-disc SiO ₂ nanofiber filter. <i>Scientific Reports</i> , 2020, 10, 6585.	3.3	7
78	Chapter 8 A coil for magnetic stimulation of the macaque monkey brain. <i>Supplements To Clinical Neurophysiology</i> , 2003, 56, 75-80.	2.1	6
79	Influence of residual oxygen-15-labeled carbon monoxide radioactivity on cerebral blood flow and oxygen extraction fraction in a dual-tracer autoradiographic method. <i>Annals of Nuclear Medicine</i> , 2009, 23, 363-371.	2.2	5
80	Three-dimensional quantitation of regional cerebral blood flow in mice using a high-resolution pinhole SPECT system and ¹²³ I-iodoamphetamine. <i>Nuclear Medicine and Biology</i> , 2011, 38, 1157-1164.	0.6	5
81	A novel Tungsten-based fiducial marker for multi-modal brain imaging. <i>Journal of Neuroscience Methods</i> , 2019, 323, 22-31.	2.5	5
82	The posterior parietal cortex contributes to visuomotor processing for saccades in blindsight macaques. <i>Communications Biology</i> , 2021, 4, 278.	4.4	5
83	Personality, subjective well-being, and the serotonin 1a receptor gene in common marmosets (<i>Callithrix jacchus</i>). <i>PLoS ONE</i> , 2021, 16, e0238663.	2.5	5
84	Optimization of transmission scan duration for ¹⁵ O PET study with sequential dual tracer administration using N-index. <i>Annals of Nuclear Medicine</i> , 2010, 24, 413-420.	2.2	4
85	Quantification in SPECT cardiac imaging. <i>Journal of Nuclear Medicine</i> , 2003, 44, 40-2.	5.0	4
86	Neuroimaging for optimization of stem cell therapy in Parkinson's disease. <i>Expert Opinion on Biological Therapy</i> , 2013, 13, 1631-1638.	3.1	3
87	Quantification of receptor activation by oxytocin and vasopressin in endocytosis-coupled bioluminescence reduction assay using nanoKAZ. <i>Analytical Biochemistry</i> , 2018, 549, 174-183.	2.4	3
88	Affective temperaments are associated with the white matter microstructure in healthy participants. <i>Bipolar Disorders</i> , 2019, 21, 539-546.	1.9	3
89	Development of injectable O-15 oxygen and its application for estimation of OEF. <i>International Congress Series</i> , 2004, 1265, 262-265.	0.2	2
90	A physiological model for cerebral oxygen delivery and consumption and effective oxygen diffusibility evaluated by PET. <i>International Congress Series</i> , 2004, 1265, 228-237.	0.2	2

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91	Measurement of cerebral blood flow with dynamic susceptibility contrast MRI and comparison with O-15 positron emission tomography. International Congress Series, 2004, 1265, 150-158.	0.2	2
92	Chapter 24 Repetitive transcranial magnetic stimulation (rTMS) in monkeys. Supplements To Clinical Neurophysiology, 2006, 59, 173-181.	2.1	2
93	The role of neuronal nitric oxide in the regional neurovascular coupling. International Congress Series, 2002, 1235, 197-204.	0.2	1
94	Improved parametric images of blood flow and vascular volume by. International Congress Series, 2004, 1265, 79-83.	0.2	1
95	Evaluation of utility of asymmetric index for count-based oxygen extraction fraction on dual-tracer autoradiographic method for chronic unilateral brain infarction. Annals of Nuclear Medicine, 2009, 23, 533-539.	2.2	1
96	Rapid CBF/CMRO2 measurement in a single PET scan with dual tracer administration. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S672-S672.	4.3	1
97	Model-based background compensation for repeat PET study with multiple tracer administration. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 29-34.	0.4	0
98	Therapeutic mechanism of repetitive transcranial magnetic stimulation (rTMS)â€™a monkey PET study. International Congress Series, 2004, 1264, 186-190.	0.2	0
99	Future perspectives in in vivo quantitation of bio-physiological parameters. International Congress Series, 2004, 1264, 148-157.	0.2	0
100	Adenosine-induced myocardial flow reactivity in pig as assessed with O-15 water PET. International Congress Series, 2004, 1264, 117-125.	0.2	0
101	Dynamic spectroscopy of hyperpolarized Xe-129 in rat lung. International Congress Series, 2004, 1265, 131-138.	0.2	0
102	Image improvement in pinhole SPECT using complete data acquisition combined with statistical image reconstruction. International Congress Series, 2004, 1265, 101-105.	0.2	0
103	A role of dorsolateral prefrontal cortex in cue-induced craving. Neuroscience Research, 2007, 58, S66.	1.9	0
104	Sensitivity of FDOPA kinetic macro-parameters to changes in Parkinson's disease: Evaluation for noise influence in [18F]FDOPA PET data. NeuroImage, 2010, 52, S171.	4.2	0
105	Development of a Hyperpolarized 129Xe System on 3T for the Rat Lungs. Magnetic Resonance in Medical Sciences, 2004, 3, 1-9.	2.0	0
106	Development of sinogram-based estimation method of delay time of arterial input function with O-15 tracer and PET study. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S674-S674.	4.3	0
107	A spatially embedded cortical connectome reveals complex transformations. Neuron, 2022, 110, 185-187.	8.1	0