Jean-Pierre Mothet

List of Publications by Year
in descending order

55 papers	6,432 citations	136885 32 h-index	206029 48 g-index
59 all docs	59 docs citations	59 times ranked	6018 citing authors

#	Article	IF	Citations
1	D-Serine is an endogenous ligand for the glycine site of the N-methyl-D-aspartate receptor. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 4926-4931.	3.3	1,020
2	Glia-Derived d-Serine Controls NMDA Receptor Activity and Synaptic Memory. Cell, 2006, 125, 775-784.	13.5	789
3	Synaptic and Extrasynaptic NMDA Receptors Are Gated by Different Endogenous Coagonists. Cell, 2012, 150, 633-646.	13.5	597
4	Purification of serine racemase: Biosynthesis of the neuromodulator D-serine. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 721-725.	3.3	482
5	Glutamate receptor activation triggers a calcium-dependent and SNARE protein-dependent release of the gliotransmitter D-serine. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5606-5611.	3.3	384
6	Contribution of the D-Serine-dependent pathway to the cellular mechanisms underlying cognitive aging. Frontiers in Aging Neuroscience, 2010, 2, 1.	1.7	383
7	Astrocytes as secretory cells of the central nervous system: idiosyncrasies of vesicular secretion. EMBO Journal, 2016, 35, 239-257.	3.5	318
8	Glial D-Serine Gates NMDA Receptors at Excitatory Synapses in Prefrontal Cortex. Cerebral Cortex, 2012, 22, 595-606.	1.6	154
9	Storage and Uptake of d-Serine into Astrocytic Synaptic-Like Vesicles Specify Gliotransmission. Journal of Neuroscience, 2013, 33, 3413-3423.	1.7	148
10	A critical role for the glial-derived neuromodulator d-serine in the age-related deficits of cellular mechanisms of learning and memory. Aging Cell, 2006, 5, 267-274.	3.0	143
11	d-Serine signalling in the brain: friend and foe. Trends in Neurosciences, 2006, 29, 481-491.	4.2	138
12	pLG72 Modulates Intracellular D-Serine Levels through Its Interaction with D-Amino Acid Oxidase. Journal of Biological Chemistry, 2008, 283, 22244-22256.	1.6	135
13	Regulation of N-methyl-d-aspartate receptors by astrocytic d-serine. Neuroscience, 2009, 158, 275-283.	1.1	129
14	Identity of the NMDA receptor coagonist is synapse specific and developmentally regulated in the hippocampus. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E204-13.	3.3	111
15	Activated microglia impairs neuroglial interaction by opening <scp>C</scp>x43 hemichannels in hippocampal astrocytes. Glia, 2015, 63, 795-811.	2.5	108
16	Confocal imaging and tracking of the exocytotic routes for <scp>D</scp>â€serineâ€mediated gliotransmission. Glia, 2008, 56, 1271-1284.	2.5	100
17	Characterization of a Yeast<scp>d</scp>-Amino Acid Oxidase Microbiosensor for<scp>d</scp>-Serine Detection in the Central Nervous System. Analytical Chemistry, 2008, 80, 1589-1597.	3.2	93
18	Reversal of ageâ€related oxidative stress prevents hippocampal synaptic plasticity deficits by protecting <scp>d</scp>â€serineâ€dependent NMDA receptor activation. Aging Cell, 2012, 11, 336-344.	3.0	88

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19	Cell-type specific mechanisms of D-serine uptake and release in the brain. Frontiers in Synaptic Neuroscience, 2014, 6, 12.	1.3	84
20	Co-agonists differentially tune GluN2B-NMDA receptor trafficking at hippocampal synapses. ELife, 2017, 6, .	2.8	76
21	Reduced serine racemase expression contributes to age-related deficits in hippocampal cognitive function. Neurobiology of Aging, 2011, 32, 1495-1504.	1.5	75
22	Time and space profiling of <scp>NMDA</scp> receptor coâ€agonist functions. Journal of Neurochemistry, 2015, 135, 210-225.	2.1	72
23	Age-related effects of the neuromodulator d-serine on neurotransmission and synaptic potentiation in the CA1 hippocampal area of the rat. Journal of Neurochemistry, 2006, 98, 1159-1166.	2.1	71
24	Dysfunction of homeostatic control of dopamine by astrocytes in the developing prefrontal cortex leads to cognitive impairments. Molecular Psychiatry, 2020, 25, 732-749.	4.1	71
25	Molecular determinants ofD-serine-mediated gliotransmission: From release to function. Glia, 2006, 54, 726-737.	2.5	62
26	d-Aspartate: An endogenous NMDA receptor agonist enriched in the developing brain with potential involvement in schizophrenia. Journal of Pharmaceutical and Biomedical Analysis, 2015, 116, 7-17.	1.4	52
27	A nitric oxide synthase activity is involved in the modulation of acetylcholine release inAplysia ganglion neurons: A histological, voltammetric and electrophysiological study. Neuroscience, 1995, 69, 985-995.	1.1	48
28	Changes inD-serine levels and localization during postnatal development of the rat vestibular nuclei. Journal of Comparative Neurology, 2006, 497, 610-621.	0.9	43
29	Cancer pain is not necessarily correlated with spinal overexpression of reactive glia markers. Pain, 2014, 155, 275-291.	2.0	43
30	Neuronâ€“glia interactions in the rat supraoptic nucleus. Progress in Brain Research, 2008, 170, 109-117.	0.9	41
31	Opposite actions of nitric oxide on cholinergic synapses: which pathways?. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 8721-8726.	3.3	36
32	Tissue Plasminogen Activator Expression Is Restricted to Subsets of Excitatory Pyramidal Glutamatergic Neurons. Molecular Neurobiology, 2016, 53, 5000-5012.	1.9	36
33	Dysfunctional d-aspartate metabolism in BTBR mouse model of idiopathic autism. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140531.	1.1	34
34	NO decreases evoked quantal ACh release at a synapse of Aplysia by a mechanism independent of Ca2+ influx and protein kinase G.. Journal of Physiology, 1996, 493, 769-784.	1.3	31
35	D-Serine and Glycine Differentially Control Neurotransmission during Visual Cortex Critical Period. PLoS ONE, 2016, 11, e0151233.	1.1	31
36	The plastic d-serine signaling pathway: Sliding from neurons to glia and vice-versa. Neuroscience Letters, 2019, 689, 21-25.	1.0	30

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37	Investigating brain <scp>d</scp>â€serine: Advocacy for good practices. Acta Physiologica, 2019, 226, e13257.	1.8	25
38	Gliotransmission at central glutamatergic synapses: d-serine on stage. Journal of Physiology (Paris), 2006, 99, 103-110.	2.1	22
39	Control of the calcium concentration involved in acetylcholine release and its facilitation: an additional role for synaptic vesicles?. Neuroscience, 1998, 85, 85-91.	1.1	18
40	Electrophysiological Analysis of the Modulation of NMDA-Receptors Function by d-Serine and Glycine in the Central Nervous System. Methods in Molecular Biology, 2012, 794, 299-312.	0.4	17
41	Brain d-amino acids: a novel class of neuromodulators. Amino Acids, 2012, 43, 1809-1810.	1.2	15
42	Cellular distribution of d-serine, serine racemase and d-amino acid oxidase in the rat vestibular sensory epithelia. Neuroscience, 2006, 137, 991-997.	1.1	14
43	Dopaminergic neuromodulation of prefrontal cortex activity requires the NMDA receptor coagonist <scp>d</scp> -serine. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
44	Asc-1 Transporter (SLC7A10): Homology Models And Molecular Dynamics Insights Into The First Steps Of The Transport Mechanism. Scientific Reports, 2020, 10, 3731.	1.6	12
45	Fonction de la ?-sÃƒÂ©rine endogÃƒÂ¨ne libre dans le cerveau des mammifÃƒÂ¨res : les scientifiques ont-ils dÃƒÂ©couvert la voie royale pour le traitement de certaines pathologies neurodÃƒÂ©gÃƒÂ©nÃƒÂ©ratives?. Pathologie Et Biologie, 2001, 49, 655-659.	2.2	11
46	Astrocytic Vesicleâ€based Exocytosis in Cultures and Acutely Isolated Hippocampal Rodent Slices. Journal of Neuroscience Research, 2017, 95, 2152-2158.	1.3	8
47	Antimicrobial d-amino acid oxidase-derived peptides specify gut microbiota. Cellular and Molecular Life Sciences, 2021, 78, 3607-3620.	2.4	6
48	Physiopathological Relevance of D-Serine in the Mammalian Cochlea. Frontiers in Cellular Neuroscience, 2021, 15, 733004.	1.8	6
49	Characterization of a D-Amino Acid Oxidase Microbiosensor for D-Serine Detection in the Central Nervous System. , 2007, , .		2
50	Physiological Roles of d-Serine in the Central Nervous System. , 2016, , 27-50.		1
51	A critical role for astrocytes in the age-related alteration of long-term synaptic depression and depotentiation. Journal of Physiology (Paris), 2006, 99, 2-3.	2.1	0
52	d-Serine: From Its Synthesis in Glial Cell to Its Action on Synaptic Transmission and Plasticity. , 2009, , 717-723.		0
53	Special issue on â€œ d -amino acids: biology in the mirrorâ€. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 741-742.	1.1	0
54	The dopaminergic receptors control the availability of the NMDA receptor co-agonist d-serine to enable proper synaptic activity and cognitive function. IBRO Reports, 2019, 6, S34.	0.3	0

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55	Glia-derived D-serine and synaptic plasticity. , 2009, , 417-441.		0