

# Jean-Pierre Mothet

## List of Publications by Citations

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52  
papers

5,409  
citations

30  
h-index

59  
g-index

59  
ext. papers

5,994  
ext. citations

8.6  
avg, IF

5.27  
L-index

#	Paper	IF	Citations
52	D-serine is an endogenous ligand for the glycine site of the N-methyl-D-aspartate receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2000</b> , 97, 4926-31	11.5	906
51	Glia-derived D-serine controls NMDA receptor activity and synaptic memory. <i>Cell</i> , <b>2006</b> , 125, 775-84	56.2	673
50	Synaptic and extrasynaptic NMDA receptors are gated by different endogenous coagonists. <i>Cell</i> , <b>2012</b> , 150, 633-46	56.2	483
49	Purification of serine racemase: biosynthesis of the neuromodulator D-serine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1999</b> , 96, 721-5	11.5	429
48	Glutamate receptor activation triggers a calcium-dependent and SNARE protein-dependent release of the gliotransmitter D-serine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 5606-11	11.5	351
47	Contribution of the d-Serine-Dependent Pathway to the Cellular Mechanisms Underlying Cognitive Aging. <i>Frontiers in Aging Neuroscience</i> , <b>2010</b> , 2, 1	5.3	340
46	Astrocytes as secretory cells of the central nervous system: idiosyncrasies of vesicular secretion. <i>EMBO Journal</i> , <b>2016</b> , 35, 239-57	13	230
45	Glial D-serine gates NMDA receptors at excitatory synapses in prefrontal cortex. <i>Cerebral Cortex</i> , <b>2012</b> , 22, 595-606	5.1	137
44	D-serine signalling in the brain: friend and foe. <i>Trends in Neurosciences</i> , <b>2006</b> , 29, 481-91	13.3	132
43	A critical role for the glial-derived neuromodulator D-serine in the age-related deficits of cellular mechanisms of learning and memory. <i>Aging Cell</i> , <b>2006</b> , 5, 267-74	9.9	128
42	Storage and uptake of D-serine into astrocytic synaptic-like vesicles specify gliotransmission. <i>Journal of Neuroscience</i> , <b>2013</b> , 33, 3413-23	6.6	125
41	pLG72 modulates intracellular D-serine levels through its interaction with D-amino acid oxidase: effect on schizophrenia susceptibility. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 22244-56	5.4	123
40	Regulation of N-methyl-D-aspartate receptors by astrocytic D-serine. <i>Neuroscience</i> , <b>2009</b> , 158, 275-83	3.9	105
39	Confocal imaging and tracking of the exocytotic routes for D-serine-mediated gliotransmission. <i>Glia</i> , <b>2008</b> , 56, 1271-84	9	95
38	Activated microglia impairs neuroglial interaction by opening Cx43 hemichannels in hippocampal astrocytes. <i>Glia</i> , <b>2015</b> , 63, 795-811	9	88
37	Characterization of a yeast D-amino acid oxidase microbiosensor for D-serine detection in the central nervous system. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 1589-97	7.8	82
36	Identity of the NMDA receptor coagonist is synapse specific and developmentally regulated in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E204-13	11.5	78

35	Cell-type specific mechanisms of D-serine uptake and release in the brain. <i>Frontiers in Synaptic Neuroscience</i> , <b>2014</b> , 6, 12	3.5	68
34	Age-related effects of the neuromodulator D-serine on neurotransmission and synaptic potentiation in the CA1 hippocampal area of the rat. <i>Journal of Neurochemistry</i> , <b>2006</b> , 98, 1159-66	6	67
33	Time and space profiling of NMDA receptor co-agonist functions. <i>Journal of Neurochemistry</i> , <b>2015</b> , 135, 210-25	6	63
32	Reversal of age-related oxidative stress prevents hippocampal synaptic plasticity deficits by protecting D-serine-dependent NMDA receptor activation. <i>Aging Cell</i> , <b>2012</b> , 11, 336-44	9.9	63
31	Reduced serine racemase expression contributes to age-related deficits in hippocampal cognitive function. <i>Neurobiology of Aging</i> , <b>2011</b> , 32, 1495-504	5.6	62
30	Molecular determinants of D-serine-mediated gliotransmission: from release to function. <i>Glia</i> , <b>2006</b> , 54, 726-37	9	59
29	Co-agonists differentially tune GluN2B-NMDA receptor trafficking at hippocampal synapses. <i>ELife</i> , <b>2017</b> , 6,	8.9	48
28	A nitric oxide synthase activity is involved in the modulation of acetylcholine release in Aplysia ganglion neurons: a histological, voltammetric and electrophysiological study. <i>Neuroscience</i> , <b>1995</b> , 69, 985-95	3.9	45
27	Changes in D-serine levels and localization during postnatal development of the rat vestibular nuclei. <i>Journal of Comparative Neurology</i> , <b>2006</b> , 497, 610-21	3.4	42
26	D-Aspartate: An endogenous NMDA receptor agonist enriched in the developing brain with potential involvement in schizophrenia. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , <b>2015</b> , 116, 7-17	3.5	37
25	Cancer pain is not necessarily correlated with spinal overexpression of reactive glia markers. <i>Pain</i> , <b>2014</b> , 155, 275-291	8	36
24	Neuron-glia interactions in the rat supraoptic nucleus. <i>Progress in Brain Research</i> , <b>2008</b> , 170, 109-17	2.9	34
23	Opposite actions of nitric oxide on cholinergic synapses: which pathways?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1996</b> , 93, 8721-6	11.5	33
22	Dysfunction of homeostatic control of dopamine by astrocytes in the developing prefrontal cortex leads to cognitive impairments. <i>Molecular Psychiatry</i> , <b>2020</b> , 25, 732-749	15.1	29
21	NO decreases evoked quantal ACh release at a synapse of Aplysia by a mechanism independent of Ca <sup>2+</sup> influx and protein kinase G. <i>Journal of Physiology</i> , <b>1996</b> , 493 ( Pt 3), 769-84	3.9	26
20	D-Serine and Glycine Differentially Control Neurotransmission during Visual Cortex Critical Period. <i>PLoS ONE</i> , <b>2016</b> , 11, e0151233	3.7	25
19	Tissue Plasminogen Activator Expression Is Restricted to Subsets of Excitatory Pyramidal Glutamatergic Neurons. <i>Molecular Neurobiology</i> , <b>2016</b> , 53, 5000-12	6.2	21
18	The plastic d-serine signaling pathway: Sliding from neurons to glia and vice-versa. <i>Neuroscience Letters</i> , <b>2019</b> , 689, 21-25	3.3	18

17	Control of the calcium concentration involved in acetylcholine release and its facilitation: an additional role for synaptic vesicles?. <i>Neuroscience</i> , <b>1998</b> , 85, 85-91	3.9	18
16	Investigating brain d-serine: Advocacy for good practices. <i>Acta Physiologica</i> , <b>2019</b> , 226, e13257	5.6	16
15	Gliotransmission at central glutamatergic synapses: D-serine on stage. <i>Journal of Physiology (Paris)</i> , <b>2006</b> , 99, 103-10		16
14	Electrophysiological analysis of the modulation of NMDA-receptors function by D-serine and glycine in the central nervous system. <i>Methods in Molecular Biology</i> , <b>2012</b> , 794, 299-312	1.4	16
13	Cellular distribution of D-serine, serine racemase and D-amino acid oxidase in the rat vestibular sensory epithelia. <i>Neuroscience</i> , <b>2006</b> , 137, 991-7	3.9	11
12	Physiological relevance of endogenous free D-serine in the mammalian brain: are scientists on a royal road for the treatment of glutamatergic-related brain disorders?. <i>Pathologie Et Biologie</i> , <b>2001</b> , 49, 655-9		10
11	Dysfunctional d-aspartate metabolism in BTBR mouse model of idiopathic autism. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2020</b> , 1868, 140531	4	9
10	Astrocytic Vesicle-based Exocytosis in Cultures and Acutely Isolated Hippocampal Rodent Slices. <i>Journal of Neuroscience Research</i> , <b>2017</b> , 95, 2152-2158	4.4	8
9	Asc-1 Transporter (SLC7A10): Homology Models And Molecular Dynamics Insights Into The First Steps Of The Transport Mechanism. <i>Scientific Reports</i> , <b>2020</b> , 10, 3731	4.9	4
8	Dopaminergic neuromodulation of prefrontal cortex activity requires the NMDA receptor coagonist d-serine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	3
7	Characterization of a D-Amino Acid Oxidase Microbiosensor for D-Serine Detection in the Central Nervous System <b>2007</b> ,		2
6	Antimicrobial D-amino acid oxidase-derived peptides specify gut microbiota. <i>Cellular and Molecular Life Sciences</i> , <b>2021</b> , 78, 3607-3620	10.3	2
5	Astrocytic VMAT2 in the developing prefrontal cortex is required for normal grooming behavior in mice		1
4	Physiopathological Relevance of D-Serine in the Mammalian Cochlea.. <i>Frontiers in Cellular Neuroscience</i> , <b>2021</b> , 15, 733004	6.1	0
3	Physiological Roles of d-Serine in the Central Nervous System <b>2016</b> , 27-50		
2	d-Serine: From Its Synthesis in Glial Cell to Its Action on Synaptic Transmission and Plasticity <b>2009</b> , 717-723		
1	Glia-derived D-serine and synaptic plasticity <b>2009</b> , 417-441		