Laurent Groc

List of Publications by Year
in descending order

60 papers	5,528 citations	117625 34 h-index	123424 61 g-index
66 all docs	66 docs citations	66 times ranked	6428 citing authors

#	Article	IF	Citations
1	Synaptic and Extrasynaptic NMDA Receptors Are Gated by Different Endogenous Coagonists. Cell, 2012, 150, 633-646.	28.9	597
2	The Interaction between Stargazin and PSD-95 Regulates AMPA Receptor Surface Trafficking. Neuron, 2007, 53, 719-734.	8.1	500
3	Surface Mobility of Postsynaptic AMPARs Tunes Synaptic Transmission. Science, 2008, 320, 201-205.	12.6	433
4	Differential activity-dependent regulation of the lateral mobilities of AMPA and NMDA receptors. Nature Neuroscience, 2004, 7, 695-696.	14.8	366
5	NMDA receptor surface mobility depends on NR2A-2B subunits. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18769-18774.	7.1	306
6	Diffusional Trapping of GluR1 AMPA Receptors by Input-Specific Synaptic Activity. Neuron, 2007, 54, 447-460.	8.1	272
7	Disrupted surface cross-talk between NMDA and Ephrin-B2 receptors in anti-NMDA encephalitis. Brain, 2012, 135, 1606-1621.	7.6	272
8	The stress hormone corticosterone conditions AMPAR surface trafficking and synaptic potentiation. Nature Neuroscience, 2008, 11, 868-870.	14.8	240
9	Surface diffusion of astrocytic glutamate transporters shapes synaptic transmission. Nature Neuroscience, 2015, 18, 219-226.	14.8	223
10	NMDA Receptor Surface Trafficking and Synaptic Subunit Composition Are Developmentally Regulated by the Extracellular Matrix Protein Reelin. Journal of Neuroscience, 2007, 27, 10165-10175.	3.6	185
11	Linking glutamate receptor movements and synapse function. Science, 2020, 368, .	12.6	133
12	Surface trafficking of N-methyl-d-aspartate receptors: Physiological and pathological perspectives. Neuroscience, 2009, 158, 4-18.	2.3	110
13	Dynamic disorganization of synaptic NMDA receptors triggered by autoantibodies from psychotic patients. Nature Communications, 2017, 8, 1791.	12.8	103
14	Surface dynamics of GluN2B-NMDA receptors controls plasticity of maturing glutamate synapses. EMBO Journal, 2014, 33, 842-861.	7.8	101
15	Single-molecule imaging of the functional crosstalk between surface NMDA and dopamine D1 receptors. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18005-18010.	7.1	92
16	Dynamic and specific interaction between synaptic NR2-NMDA receptor and PDZ proteins. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19561-19566.	7.1	86
17	Differential Nanoscale Topography and Functional Role of GluN2-NMDA Receptor Subtypes at Glutamatergic Synapses. Neuron, 2018, 100, 106-119.e7.	8.1	83
18	Co-agonists differentially tune GluN2B-NMDA receptor trafficking at hippocampal synapses. ELife, 2017, 6, .	6.0	76

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19	Glutamate receptor dynamics and protein interaction: Lessons from the NMDA receptor. Molecular and Cellular Neurosciences, 2011, 48, 298-307.	2.2	75
20	Is it time for immunopsychiatry in psychotic disorders?. Psychopharmacology, 2016, 233, 1651-1660.	3.1	74
21	Altered surface mGluR5 dynamics provoke synaptic NMDAR dysfunction and cognitive defects in Fmr1 knockout mice. Nature Communications, 2017, 8, 1103.	12.8	71
22	Synucleinopathy alters nanoscale organization and diffusion in the brain extracellular space through hyaluronan remodeling. Nature Communications, 2020, 11, 3440.	12.8	69
23	A critical role for VEGF and VEGFR2 in NMDA receptor synaptic function and fear-related behavior. Molecular Psychiatry, 2016, 21, 1768-1780.	7.9	68
24	Cell- and Single Molecule-Based Methods to Detect Anti- N -Methyl-D-Aspartate Receptor Autoantibodies in Patients With First-Episode Psychosis From the OPTiMiSE Project. Biological Psychiatry, 2017, 82, 766-772.	1.3	67
25	Ultradian corticosterone pulses balance glutamatergic transmission and synaptic plasticity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14265-14270.	7.1	66
26	CaMKII activation persistently segregates postsynaptic proteins via liquid phase separation. Nature Neuroscience, 2021, 24, 777-785.	14.8	65
27	Targeting neurotransmitter receptors with nanoparticles in vivo allows single-molecule tracking in acute brain slices. Nature Communications, 2016, 7, 10947.	12.8	62
28	Probing the Dynamics of Proteinâ€"Protein Interactions at Neuronal Contacts by Optical Imaging. Chemical Reviews, 2008, 108, 1565-1587.	47.7	56
29	Stress hormone rapidly tunes synaptic NMDA receptor through membrane dynamics and mineralocorticoid signalling. Scientific Reports, 2017, 7, 8053.	3.3	48
30	Surface trafficking of NMDA receptors: Gathering from a partner to another. Seminars in Cell and Developmental Biology, 2014, 27, 3-13.	5.0	46
31	Interleukinâ€1 Î²â€targeted treatment strategies in inflammatory depression: toward personalized care. Acta Psychiatrica Scandinavica, 2016, 134, 469-484.	4.5	44
32	Tissue-type plasminogen activator controls neuronal death by raising surface dynamics of extrasynaptic NMDA receptors. Cell Death and Disease, 2016, 7, e2466-e2466.	6.3	42
33	Temporal Memory and Its Enhancement by Estradiol Requires Surface Dynamics of Hippocampal CA1 N-Methyl-D-Aspartate Receptors. Biological Psychiatry, 2016, 79, 735-745.	1.3	41
34	Toward the suppression of cellular toxicity from single-walled carbon nanotubes. Biomaterials Science, 2016, 4, 230-244.	5.4	40
35	Human endogenous retroviral protein triggers deficit in glutamate synapse maturation and behaviors associated with psychosis. Science Advances, 2020, 6, eabc0708.	10.3	37
36	Comparative Analysis of Photoluminescence and Upconversion Emission from Individual Carbon Nanotubes for Bioimaging Applications. ACS Photonics, 2018, 5, 359-364.	6.6	33

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37	Antidepressive effects of targeting ELK-1 signal transduction. Nature Medicine, 2018, 24, 591-597.	30.7	33
38	Hippocampal Fast Glutamatergic Transmission Is Transiently Regulated by Corticosterone Pulsatility. PLoS ONE, 2016, 11, e0145858.	2.5	28
39	Restoring glutamate receptosome dynamics at synapses rescues autism-like deficits in Shank3-deficient mice. Molecular Psychiatry, 2021, 26, 7596-7609.	7.9	25
40	Pathogenicity of Antibodies against NMDA Receptor: Molecular Insights into Autoimmune Psychosis. Trends in Neurosciences, 2018, 41, 502-511.	8.6	23
41	Regulation of membrane NMDA receptors by dynamics and protein interactions. Journal of Cell Biology, 2021, 220, .	5.2	21
42	Surface trafficking of neurotransmitter receptors: From cultured neurons to intact brain preparations. Neuropharmacology, 2020, 169, 107642.	4.1	19
43	Human Autoantibodies Against N-Methyl-D-Aspartate Receptor Modestly Alter Dopamine D1 Receptor Surface Dynamics. Frontiers in Psychiatry, 2019, 10, 670.	2.6	18
44	Distance-dependent regulation of NMDAR nanoscale organization along hippocampal neuron dendrites. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24526-24533.	7.1	18
45	Clinical and autoimmune features of a patient with autism spectrum disorder seropositive for antiâ€"NMDA-receptor autoantibody. Dialogues in Clinical Neuroscience, 2017, 19, 65-70.	3.7	16
46	The diverse and complex modes of action of anti-NMDA receptor autoantibodies. Neuropharmacology, 2021, 194, 108624.	4.1	15
47	Single nanoparticle tracking of N -methyl-<scp>d</scp>-aspartate receptors in cultured and intact brain tissue. Neurophotonics, 2016, 3, 041808.	3.3	14
48	Relationship Between Serum NMDA Receptor Antibodies and Response to Antipsychotic Treatment in First-Episode Psychosis. Biological Psychiatry, 2021, 90, 9-15.	1.3	14
49	Autoimmunity and NMDA receptor in brain disorders: Where do we stand?. Neurobiology of Disease, 2021, 147, 105161.	4.4	13
50	Characterization of the Functional Cross-Talk between Surface GABAA and Dopamine D5 Receptors. International Journal of Molecular Sciences, 2021, 22, 4867.	4.1	13
51	Dynamics of surface neurotransmitter receptors and transporters in glial cells: Single molecule insights. Cell Calcium, 2017, 67, 46-52.	2.4	11
52	A Bottomâ€Up Approach to Redâ€Emitting Molecularâ€Based Nanoparticles with Natural Stealth Properties and their Use for Singleâ€Particle Tracking Deep in Brain Tissue. Advanced Materials, 2021, 33, e2006644.	21.0	10
53	Molecular Pathogenicity of Anti-NMDA Receptor Autoantibody From Patients With First-Episode Psychosis. American Journal of Psychiatry, 2018, 175, 382-383.	7.2	9
54	Role of CX3CR1 Signaling on the Maturation of GABAergic Transmission and Neuronal Network Activity in the Neonate Hippocampus. Neuroscience, 2019, 406, 186-201.	2.3	9

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55	Interplay between NMDA receptor dynamics and the synaptic proteasome. European Journal of Neuroscience, 2021, 54, 6000-6011.	2.6	8
56	Alteration of NMDA receptor trafficking as a cellular hallmark of psychosis. Translational Psychiatry, 2021, 11, 444.	4.8	7
57	NMDA receptor membrane dynamics tunes the firing pattern of midbrain dopaminergic neurons. Journal of Physiology, 2021, 599, 2933-2951.	2.9	6
58	Co-activation of VEGF and NMDA receptors promotes synaptic targeting of AMPA receptors. Molecular Psychiatry, 2016, 21, 1647-1647.	7.9	2
59	Tracking single membrane targets of human autoantibodies using single nanoparticle imaging. Journal of Neuroscience Methods, 2018, 304, 76-82.	2.5	2
60	Une maladie auto-immuneÂ?. , 2021, NÂ° 130, 36-41.		0