Mark Farrant

List of Publications by Citations

48 papers	7,581 citations	32 h-index	55 g-index
55 ext. papers	8,311 ext. citations	13.7 avg, IF	5.96 L-index

#	Paper	IF	Citations
48	Variations on an inhibitory theme: phasic and tonic activation of GABA(A) receptors. *Nature Reviews Neuroscience*, **2005**, 6, 215-29	13.5	1590
47	NMDA receptor subunits: diversity, development and disease. *Current Opinion in Neurobiology*, **2001**, 11, 327-35	7.6	1354
46	Neuroactive steroids reduce neuronal excitability by selectively enhancing tonic inhibition mediated by delta subunit-containing GABAA receptors. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 14439-44	11.5	646
45	Adaptive regulation of neuronal excitability by a voltage-independent potassium conductance. *Nature*, **2001**, 409, 88-92	50.4	480
44	Differences in synaptic GABA(A) receptor number underlie variation in GABA mini amplitude. *Neuron*, **1997**, 19, 697-709	13.9	379
43	Regulation of Ca2+-permeable AMPA receptors: synaptic plasticity and beyond. *Current Opinion in Neurobiology*, **2006**, 16, 288-97	7.6	353
42	The cellular, molecular and ionic basis of GABA(A) receptor signalling. *Progress in Brain Research*, **2007**, 160, 59-87	2.9	282
41	NMDA-receptor channel diversity in the developing cerebellum. *Nature*, **1994**, 368, 335-9	50.4	277
40	Synaptic inhibition of Purkinje cells mediates consolidation of vestibulo-cerebellar motor learning. *Nature Neuroscience*, **2009**, 12, 1042-9	25.5	228
39	Single-channel properties of synaptic and extrasynaptic GABAA receptors suggest differential targeting of receptor subtypes. *Journal of Neuroscience*, **1999**, 19, 2960-73	6.6	211
38	Stargazin attenuates intracellular polyamine block of calcium-permeable AMPA receptors. *Nature Neuroscience*, **2007**, 10, 1260-7	25.5	151
37	GABAergic regulation of cerebellar NG2 cell development is altered in perinatal white matter injury. *Nature Neuroscience*, **2015**, 18, 674-82	25.5	123
36	Maturation of EPSCs and intrinsic membrane properties enhances precision at a cerebellar synapse. *Journal of Neuroscience*, **2003**, 23, 6074-85	6.6	120
35	From synapse to behavior: rapid modulation of defined neuronal types with engineered GABAA receptors. *Nature Neuroscience*, **2007**, 10, 923-9	25.5	106
34	A direct comparison of the single-channel properties of synaptic and extrasynaptic NMDA receptors. *Journal of Neuroscience*, **1997**, 17, 107-16	6.6	88
33	Selective regulation of long-form calcium-permeable AMPA receptors by an atypical TARP, gamma-5. *Nature Neuroscience*, **2009**, 12, 277-85	25.5	87
32	Bidirectional plasticity of calcium-permeable AMPA receptors in oligodendrocyte lineage cells. *Nature Neuroscience*, **2011**, 14, 1430-8	25.5	84

31	Identification of subunits contributing to synaptic and extrasynaptic NMDA receptors in Golgi cells of the rat cerebellum. *Journal of Physiology*, **2000**, 524 Pt 1, 147-62	3.9	81
30	Profound desensitization by ambient GABA limits activation of □containing GABAA receptors during spillover. *Journal of Neuroscience*, **2011**, 31, 753-63	6.6	80
29	Setting the time course of inhibitory synaptic currents by mixing multiple GABA(A) receptor □ subunit isoforms. *Journal of Neuroscience*, **2012**, 32, 5853-67	6.6	72
28	NMDA receptor diversity in the cerebellum: identification of subunits contributing to functional receptors. *Neuropharmacology*, **1998**, 37, 1369-80	5.5	72
27	Climbing-fibre activation of NMDA receptors in Purkinje cells of adult mice. *Journal of Physiology*, **2007**, 585, 91-101	3.9	69
26	Synaptic mGluR activation drives plasticity of calcium-permeable AMPA receptors. *Nature Neuroscience*, **2009**, 12, 593-601	25.5	66
25	Cornichons modify channel properties of recombinant and glial AMPA receptors. *Journal of Neuroscience*, **2012**, 32, 9796-804	6.6	64
24	Probing TARP modulation of AMPA receptor conductance with polyamine toxins. *Journal of Neuroscience*, **2011**, 31, 7511-20	6.6	51
23	An Essential Role for the Tetraspanin LHFPL4 in the Cell-Type-Specific Targeting and Clustering of Synaptic GABA Receptors. *Cell Reports*, **2017**, 21, 70-83	10.6	48
22	Mapping the interaction sites between AMPA receptors and TARPs reveals a role for the receptor N-terminal domain in channel gating. *Cell Reports*, **2014**, 9, 728-40	10.6	47
21	Channel properties reveal differential expression of TARPed and TARPless AMPARs in stargazer neurons. *Nature Neuroscience*, **2012**, 15, 853-61	25.5	46
20	TARP □7 selectively enhances synaptic expression of calcium-permeable AMPARs. *Nature Neuroscience*, **2013**, 16, 1266-74	25.5	39
19	Auxiliary Subunit GSG1L Acts to Suppress Calcium-Permeable AMPA Receptor Function. *Journal of Neuroscience*, **2015**, 35, 16171-9	6.6	39
18	Molecular mechanisms contributing to TARP regulation of channel conductance and polyamine block of calcium-permeable AMPA receptors. *Journal of Neuroscience*, **2014**, 34, 11673-83	6.6	35
17	TARP-associated AMPA receptors display an increased maximum channel conductance and multiple kinetically distinct open states. *Journal of Physiology*, **2012**, 590, 5723-38	3.9	32
16	Synapse-specific expression of calcium-permeable AMPA receptors in neocortical layer 5. *Journal of Physiology*, **2016**, 594, 837-61	3.9	23
15	A role of TARPs in the expression and plasticity of calcium-permeable AMPARs: evidence from cerebellar neurons and glia. *Neuropharmacology*, **2013**, 74, 76-85	5.5	20
14	Properties of GABA(A) receptor-mediated transmission at newly formed Golgi-granule cell synapses in the cerebellum. *Neuropharmacology*, **2003**, 44, 181-9	5.5	20

13	Dual Effects of TARP γ2 on Glutamate Efficacy Can Account for AMPA Receptor Autoinactivation. *Cell Reports*, **2017**, 20, 1123-1135	10.6	17
12	TARP γ2 Is Required for Inflammation-Associated AMPA Receptor Plasticity within Lamina II of the Spinal Cord Dorsal Horn. *Journal of Neuroscience*, **2017**, 37, 6007-6020	6.6	16
11	Transmembrane AMPAR regulatory protein γ2 is required for the modulation of GABA release by presynaptic AMPARs. *Journal of Neuroscience*, **2015**, 35, 4203-14	6.6	13
10	Synapse Type-Dependent Expression of Calcium-Permeable AMPA Receptors. *Frontiers in Synaptic Neuroscience*, **2018**, 10, 34	3.5	13
9	Neuroscience. AMPA receptors--another twist?. *Science*, **2010**, 327, 1463-5	33.3	10
8	Homomeric GluA2(R) AMPA receptors can conduct when desensitized. *Nature Communications*, **2019**, 10, 4312	17.4	8
7	Amino Acids: Inhibitory225-250		6
6	Transient developmental imbalance of cortical interneuron subtypes presages long-term changes in behavior. *Cell Reports*, **2021**, 35, 109249	10.6	4
5	Ca -permeable AMPA receptors and their auxiliary subunits in synaptic plasticity and disease. *Journal of Physiology*, **2021**, 599, 2655-2671	3.9	4
4	Altered Cerebellar Short-Term Plasticity but No Change in Postsynaptic AMPA-Type Glutamate Receptors in a Mouse Model of Juvenile Batten Disease. *ENeuro*, **2018**, 5,	3.9	3
3	Intracellular NASPM allows an unambiguous functional measure of GluA2-lacking calcium-permeable AMPA receptor prevalence		2
2	Insights into GABAA receptors receptor complexity from the study of cerebellar granule cells. *Pharmaceutical Science Series*, **2001**, 189-201		1
1	Differential Activation of GABAA-Receptor Subtypes **2007**, 87-110		