Graham L Collingridge

List of Publications by Citations

319 papers	43,294 citations	95 h-index	204 g-index
352 ext. papers	46,448 ext. citations	9.3 avg, IF	7.32 L-index

#	Paper	IF	Citations
319	A synaptic model of memory: long-term potentiation in the hippocampus. *Nature*, **1993**, 361, 31-9	50.4	9535
318	Excitatory amino acids in synaptic transmission in the Schaffer collateral-commissural pathway of the rat hippocampus. *Journal of Physiology*, **1983**, 334, 33-46	3.9	1767
317	NMDA receptors - their role in long-term potentiation. *Trends in Neurosciences*, **1987**, 10, 288-293	13.3	1013
316	Receptor trafficking and synaptic plasticity. *Nature Reviews Neuroscience*, **2004**, 5, 952-62	13.5	800
315	Excitatory amino acid receptors and synaptic plasticity. *Trends in Pharmacological Sciences*, **1990**, 11, 290-6	13.2	766
314	Motor deficit and impairment of synaptic plasticity in mice lacking mGluR1. *Nature*, **1994**, 372, 237-43	50.4	708
313	Induction of LTP in the hippocampus needs synaptic activation of glutamate metabotropic receptors. *Nature*, **1993**, 363, 347-50	50.4	662
312	Long-term depression in the CNS. *Nature Reviews Neuroscience*, **2010**, 11, 459-73	13.5	644
311	Paired-pulse depression of monosynaptic GABA-mediated inhibitory postsynaptic responses in rat hippocampus. *Journal of Physiology*, **1990**, 424, 513-31	3.9	579
310	Differential roles of NR2A and NR2B-containing NMDA receptors in cortical long-term potentiation and long-term depression. *Journal of Neuroscience*, **2004**, 24, 7821-8	6.6	560
309	LTP inhibits LTD in the hippocampus via regulation of GSK3beta. *Neuron*, **2007**, 53, 703-17	13.9	547
308	GABA autoreceptors regulate the induction of LTP. *Nature*, **1991**, 349, 609-11	50.4	518
307	NSF binding to GluR2 regulates synaptic transmission. *Neuron*, **1998**, 21, 87-97	13.9	498
306	A nomenclature for ligand-gated ion channels. *Neuropharmacology*, **2009**, 56, 2-5	5.5	458
305	Metabotropic glutamate receptors: from the workbench to the bedside. *Neuropharmacology*, **2011**, 60, 1017-41	5.5	457
304	A molecular switch activated by metabotropic glutamate receptors regulates induction of long-term potentiation. *Nature*, **1994**, 368, 740-3	50.4	454
303	Modulation of AMPA receptor unitary conductance by synaptic activity. *Nature*, **1998**, 393, 793-7	50.4	427

302	Transient incorporation of native GluR2-lacking AMPA receptors during hippocampal long-term potentiation. *Nature Neuroscience*, **2006**, 9, 602-4	25.5	414
301	Temporally distinct pre- and post-synaptic mechanisms maintain long-term potentiation. *Nature*, **1989**, 338, 500-3	50.4	408
300	A hippocampal GluR5 kainate receptor regulating inhibitory synaptic transmission. *Nature*, **1997**, 389, 599-603	50.4	386
299	Frequency-dependent involvement of NMDA receptors in the hippocampus: a novel synaptic mechanism. *Nature*, **1986**, 322, 265-8	50.4	362
298	The synaptic activation of kainate receptors. *Nature*, **1997**, 388, 179-82	50.4	359
297	Regulation of glutamate release by presynaptic kainate receptors in the hippocampus. *Nature*, **1996**, 379, 78-81	50.4	354
296	The LTP Program: a data acquisition program for on-line analysis of long-term potentiation and other synaptic events. *Journal of Neuroscience Methods*, **2001**, 108, 71-83	3	338
295	Synaptic plasticity. The role of NMDA receptors in learning and memory. *Nature*, **1987**, 330, 604-5	50.4	335
294	Long-term potentiation of NMDA receptor-mediated synaptic transmission in the hippocampus. *Nature*, **1991**, 349, 156-8	50.4	325
293	The antagonism of amino acid-induced excitations of rat hippocampal CA1 neurones in vitro. *Journal of Physiology*, **1983**, 334, 19-31	3.9	302
292	(RS)-2-chloro-5-hydroxyphenylglycine (CHPG) activates mGlu5, but no mGlu1, receptors expressed in CHO cells and potentiates NMDA responses in the hippocampus. *Neuropharmacology*, **1997**, 36, 265-7	5.5	298
291	Surface expression of AMPA receptors in hippocampal neurons is regulated by an NSF-dependent mechanism. *Neuron*, **1999**, 23, 365-76	13.9	296
290	Synaptic plasticity in the anterior cingulate cortex in acute and chronic pain. *Nature Reviews Neuroscience*, **2016**, 17, 485-96	13.5	293
289	Alleviating neuropathic pain hypersensitivity by inhibiting PKMzeta in the anterior cingulate cortex. *Science*, **2010**, 330, 1400-4	33.3	293
288	PDZ proteins interacting with C-terminal GluR2/3 are involved in a PKC-dependent regulation of AMPA receptors at hippocampal synapses. *Neuron*, **2000**, 28, 873-86	13.9	282
287	Hippocampal LTD expression involves a pool of AMPARs regulated by the NSF-GluR2 interaction. *Neuron*, **1999**, 24, 389-99	13.9	281
286	The group I mGlu receptor agonist DHPG induces a novel form of LTD in the CA1 region of the hippocampus. *Neuropharmacology*, **1997**, 36, 1517-32	5.5	280
285	Kainate receptors are involved in synaptic plasticity. *Nature*, **1999**, 402, 297-301	50.4	277

284	Phenylglycine derivatives as antagonists of metabotropic glutamate receptors. *Trends in Pharmacological Sciences*, **1994**, 15, 333-42	13.2	271
283	A(1-42) inhibition of LTP is mediated by a signaling pathway involving caspase-3, Akt1 and GSK-3. *Nature Neuroscience*, **2011**, 14, 545-7	25.5	240
282	Evidence for the participation of nigrotectal gamma-aminobutyrate-containing neurones in striatal and nigral-derived circling in the rat. *Neuroscience*, **1982**, 7, 207-22	3.9	236
281	Characterisation of LTP induced by the activation of glutamate metabotropic receptors in area CA1 of the hippocampus. *Neuropharmacology*, **1993**, 32, 1-9	5.5	232
280	Novel pharmacological targets for the treatment of Parkinson's disease. *Nature Reviews Drug Discovery*, **2006**, 5, 845-54	64.1	229
279	Differential roles of NR2A and NR2B-containing NMDA receptors in LTP and LTD in the CA1 region of two-week old rat hippocampus. *Neuropharmacology*, **2007**, 52, 60-70	5.5	219
278	Kainate receptors: pharmacology, function and therapeutic potential. *Neuropharmacology*, **2009**, 56, 90-113	5.5	211
277	Removal of AMPA receptors (AMPARs) from synapses is preceded by transient endocytosis of extrasynaptic AMPARs. *Journal of Neuroscience*, **2004**, 24, 5172-6	6.6	201
276	Mechanisms contributing to the deficits in hippocampal synaptic plasticity in mice lacking amyloid precursor protein. *Neuropharmacology*, **1999**, 38, 349-59	5.5	199
275	Characterization of Ca2+ signals induced in hippocampal CA1 neurones by the synaptic activation of NMDA receptors. *Journal of Physiology*, **1993**, 469, 693-716	3.9	194
274	Magnesium ions block an N-methyl-D-aspartate receptor-mediated component of synaptic transmission in rat hippocampus. *Neuroscience Letters*, **1985**, 53, 21-6	3.3	194
273	Expression of NMDA receptor-dependent LTP in the hippocampus: bridging the divide. *Molecular Brain*, **2013**, 6, 5	4.5	193
272	A selective N-methyl-D-aspartate antagonist depresses epileptiform activity in rat hippocampal slices. *Neuroscience Letters*, **1985**, 61, 255-60	3.3	190
271	Rapid and differential regulation of AMPA and kainate receptors at hippocampal mossy fibre synapses by PICK1 and GRIP. *Neuron*, **2003**, 37, 625-38	13.9	187
270	Age-related impairment of synaptic transmission but normal long-term potentiation in transgenic mice that overexpress the human APP695SWE mutant form of amyloid precursor protein. *Journal of Neuroscience*, **2001**, 21, 4691-8	6.6	181
269	An investigation of depotentiation of long-term potentiation in the CA1 region of the hippocampus. *Experimental Brain Research*, **1994**, 100, 437-43	2.3	180
268	Developmental changes in synaptic AMPA and NMDA receptor distribution and AMPA receptor subunit composition in living hippocampal neurons. *Journal of Neuroscience*, **2000**, 20, 7922-31	6.6	178
267	Microtubule-associated protein tau is essential for long-term depression in the hippocampus. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, 20130144	5.8	176

266	Coexistence of two forms of LTP in ACC provides a synaptic mechanism for the interactions between anxiety and chronic pain. *Neuron*, **2015**, 85, 377-89	13.9	175
265	The NMDA receptor as a target for cognitive enhancement. *Neuropharmacology*, **2013**, 64, 13-26	5.5	175
264	Activation of group I mGluRs potentiates NMDA responses in rat hippocampal slices. *Neuroscience Letters*, **1996**, 203, 211-3	3.3	172
263	Capabilities of the WinLTP data acquisition program extending beyond basic LTP experimental functions. *Journal of Neuroscience Methods*, **2007**, 162, 346-56	3	167
262	A critical role of a facilitatory presynaptic kainate receptor in mossy fiber LTP. *Neuron*, **2001**, 32, 697-709	13.9	167
261	Roles of metabotropic glutamate receptors in LTP and LTD in the hippocampus. *Current Opinion in Neurobiology*, **1999**, 9, 299-304	7.6	166
260	Increased seizure susceptibility in mice lacking metabotropic glutamate receptor 7. *Journal of Neuroscience*, **2001**, 21, 8734-45	6.6	164
259	MK-801 blocks NMDA receptor-mediated synaptic transmission and long term potentiation in rat hippocampal slices. *Neuroscience Letters*, **1987**, 80, 111-4	3.3	163
258	A role for Ca2+ stores in kainate receptor-dependent synaptic facilitation and LTP at mossy fiber synapses in the hippocampus. *Neuron*, **2003**, 39, 327-41	13.9	160
257	The role of JAK-STAT signaling within the CNS. *Jak-stat*, **2013**, 2, e22925		157
256	CNQX blocks acidic amino acid induced depolarizations and synaptic components mediated by non-NMDA receptors in rat hippocampal slices. *Neuroscience Letters*, **1988**, 89, 182-6	3.3	156
255	A characterisation of long-term depression induced by metabotropic glutamate receptor activation in the rat hippocampus in vitro. *Journal of Physiology*, **2001**, 537, 421-30	3.9	153
254	Long-term potentiation and the role of N-methyl-D-aspartate receptors. *Brain Research*, **2015**, 1621, 5-16	3.7	151
253	Tyrosine phosphatases regulate AMPA receptor trafficking during metabotropic glutamate receptor-mediated long-term depression. *Journal of Neuroscience*, **2006**, 26, 2544-54	6.6	151
252	Regulation of synaptic strength and AMPA receptor subunit composition by PICK1. *Journal of Neuroscience*, **2004**, 24, 5381-90	6.6	151
251	Activation of microglial N-methyl-D-aspartate receptors triggers inflammation and neuronal cell death in the developing and mature brain. *Annals of Neurology*, **2012**, 72, 536-49	9.4	148
250	The Jak/STAT pathway is involved in synaptic plasticity. *Neuron*, **2012**, 73, 374-90	13.9	147
249	Long term potentiation in the hippocampus: mechanisms of initiation and modulation by neurotransmitters. *Trends in Pharmacological Sciences*, **1985**, 6, 407-411	13.2	147

248	DHPG-induced LTD in area CA1 of juvenile rat hippocampus; characterisation and sensitivity to novel mGlu receptor antagonists. *Neuropharmacology*, **1999**, 38, 1577-83	5.5	144
247	The tyrosine phosphatase STEP mediates AMPA receptor endocytosis after metabotropic glutamate receptor stimulation. *Journal of Neuroscience*, **2008**, 28, 10561-6	6.6	143
246	The potent mGlu receptor antagonist LY341495 identifies roles for both cloned and novel mGlu receptors in hippocampal synaptic plasticity. *Neuropharmacology*, **1998**, 37, 1445-58	5.5	141
245	The physiological regulation of synaptic inhibition by GABAB autoreceptors in rat hippocampus. *Journal of Physiology*, **1993**, 472, 245-65	3.9	141
244	Thapsigargin blocks the induction of long-term potentiation in rat hippocampal slices. *Neuroscience Letters*, **1992**, 139, 197-200	3.3	140
243	An essential role for PICK1 in NMDA receptor-dependent bidirectional synaptic plasticity. *Neuron*, **2008**, 57, 872-82	13.9	137
242	The GluR5 subtype of kainate receptor regulates excitatory synaptic transmission in areas CA1 and CA3 of the rat hippocampus. *Neuropharmacology*, **1998**, 37, 1269-77	5.5	134
241	1S,3R-ACPD stimulates and L-AP3 blocks Ca2+ mobilization in rat cerebellar neurons. *European Journal of Pharmacology*, **1990**, 186, 363-5	5.3	133
240	Antagonists of GLU(K5)-containing kainate receptors prevent pilocarpine-induced limbic seizures. *Nature Neuroscience*, **2002**, 5, 796-804	25.5	130
239	Low-frequency activation of the NMDA receptor system can prevent the induction of LTP. *Neuroscience Letters*, **1989**, 105, 205-10	3.3	130
238	Inhibitory post-synaptic currents in rat hippocampal CA1 neurones. *Journal of Physiology*, **1984**, 356, 551-64	3.9	130
237	Intracellular demonstration of an N-methyl-D-aspartate receptor mediated component of synaptic transmission in the rat hippocampus. *Neuroscience Letters*, **1985**, 60, 19-23	3.3	130
236	The nitric oxide--cyclic GMP pathway and synaptic depression in rat hippocampal slices. *European Journal of Neuroscience*, **1994**, 6, 1528-35	3.5	127
235	A pivotal role of GSK-3 in synaptic plasticity. *Frontiers in Molecular Neuroscience*, **2012**, 5, 13	6.1	119
234	Signal transduction pathways involved in the acute potentiation of NMDA responses by 1S,3R-ACPD in rat hippocampal slices. *British Journal of Pharmacology*, **1993**, 109, 1085-90	8.6	117
233	PI3K□s required for NMDA receptor-dependent long-term depression and behavioral flexibility. *Nature Neuroscience*, **2011**, 14, 1447-54	25.5	114
232	Hippocalcin functions as a calcium sensor in hippocampal LTD. *Neuron*, **2005**, 47, 487-94	13.9	113
231	Interactions between Ca2+ mobilizing mechanisms in cultured rat cerebellar granule cells. *Journal of Physiology*, **1992**, 456, 667-80	3.9	109

230	Functional maturation of CA1 synapses involves activity-dependent loss of tonic kainate receptor-mediated inhibition of glutamate release. *Neuron*, **2006**, 50, 415-29	13.9	108
229	Effects of memantine and MK-801 on NMDA-induced currents in cultured neurones and on synaptic transmission and LTP in area CA1 of rat hippocampal slices. *British Journal of Pharmacology*, **1996**, 117, 689-97	8.6	108
228	A new intrathalamic pathway linking modality-related nuclei in the dorsal thalamus. *Nature Neuroscience*, **1998**, 1, 389-94	25.5	107
227	Metabotropic glutamate receptors contribute to the induction of long-term depression in the CA1 region of the hippocampus. *European Journal of Pharmacology*, **1993**, 239, 265-6	5.3	101
226	CGP 55845A: a potent antagonist of GABAB receptors in the CA1 region of rat hippocampus. *Neuropharmacology*, **1993**, 32, 1071-3	5.5	99
225	The influence of striatal stimulation and putative neurotransmitters on identified neurones in the rat substantia nigra. *Brain Research*, **1981**, 212, 345-59	3.7	96
224	Endogenous activation of kainate receptors regulates glutamate release and network activity in the developing hippocampus. *Journal of Neuroscience*, **2005**, 25, 4473-84	6.6	95
223	Transient synaptic activation of NMDA receptors leads to the insertion of native AMPA receptors at hippocampal neuronal plasma membranes. *Neuropharmacology*, **2001**, 41, 700-13	5.5	92
222	Characterisation of UBP296: a novel, potent and selective kainate receptor antagonist. *Neuropharmacology*, **2004**, 47, 46-64	5.5	87
221	Pharmacological antagonism of the actions of group II and III mGluR agonists in the lateral perforant path of rat hippocampal slices. *British Journal of Pharmacology*, **1996**, 117, 1457-62	8.6	87
220	Pharmacology of postsynaptic metabotropic glutamate receptors in rat hippocampal CA1 pyramidal neurones. *British Journal of Pharmacology*, **1995**, 116, 1859-69	8.6	86
219	Effects of phencyclidine, SKF 10,047 and related psychotomimetic agents on N-methyl-D-aspartate receptor mediated synaptic responses in rat hippocampal slices. *British Journal of Pharmacology*, **1987**, 91, 547-56	8.6	86
218	Metabotropic glutamate receptor-mediated LTD involves two interacting Ca(2+) sensors, NCS-1 and PICK1. *Neuron*, **2008**, 60, 1095-111	13.9	81
217	Introduction. Long-term potentiation and structure of the issue. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2003**, 358, 607-11	5.8	81
216	Bidirectional modulation of hyperalgesia via the specific control of excitatory and inhibitory neuronal activity in the ACC. *Molecular Brain*, **2015**, 8, 81	4.5	80
215	NMDA receptor-dependent long-term potentiation comprises a family of temporally overlapping forms of synaptic plasticity that are induced by different patterns of stimulation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, 20130131	5.8	80
214	Co-activation of p38 mitogen-activated protein kinase and protein tyrosine phosphatase underlies metabotropic glutamate receptor-dependent long-term depression. *Journal of Physiology*, **2008**, 586, 2499-510	3.9	80
213	Effects of memantine on recombinant rat NMDA receptors expressed in HEK 293 cells. *British Journal of Pharmacology*, **1996**, 119, 195-204	8.6	80

212	Muscarinic receptors induce LTD of NMDAR EPSCs via a mechanism involving hippocalcin, AP2 and PSD-95. *Nature Neuroscience*, **2010**, 13, 1216-24	25.5	78
211	Role of Ca2+ stores in metabotropic L-glutamate receptor-mediated supralinear Ca2+ signaling in rat hippocampal neurons. *Journal of Neuroscience*, **2000**, 20, 8628-36	6.6	77
210	GABA(B) receptors couple directly to the transcription factor ATF4. *Molecular and Cellular Neurosciences*, **2001**, 17, 637-45	4.8	77
209	N-Methyl-D-aspartate receptors are clustered and immobilized on dendrites of living cortical neurons. *Proceedings of the National Academy of Sciences of the United States of America*, **1993**, 90, 7819-23	11.5	76
208	A novel anti-epileptic agent, perampanel, selectively inhibits AMPA receptor-mediated synaptic transmission in the hippocampus. *Neurochemistry International*, **2012**, 61, 517-22	4.4	75
207	An investigation into signal transduction mechanisms involved in DHPG-induced LTD in the CA1 region of the hippocampus. *Neuropharmacology*, **1999**, 38, 1585-96	5.5	74
206	A comparison of paired-pulsed facilitation of AMPA and NMDA receptor-mediated excitatory postsynaptic currents in the hippocampus. *Experimental Brain Research*, **1994**, 101, 272-8	2.3	74
205	A systematic investigation of the protein kinases involved in NMDA receptor-dependent LTD: evidence for a role of GSK-3 but not other serine/threonine kinases. *Molecular Brain*, **2009**, 2, 22	4.5	73
204	Acute stress causes rapid synaptic insertion of Ca2+ -permeable AMPA receptors to facilitate long-term potentiation in the hippocampus. *Brain*, **2013**, 136, 3753-65	11.2	71
203	L-glutamate and acetylcholine mobilise Ca2+ from the same intracellular pool in cerebellar granule cells using transduction mechanisms with different Ca2+ sensitivities. *Cell Calcium*, **1992**, 13, 293-301	4	71
202	Activation of the glycine site in the NMDA receptor is necessary for the induction of LTP. *Neuroscience Letters*, **1990**, 108, 261-6	3.3	71
201	The C-terminal tails of endogenous GluA1 and GluA2 differentially contribute to hippocampal synaptic plasticity and learning. *Nature Neuroscience*, **2018**, 21, 50-62	25.5	71
200	Activation of glutamate metabotropic receptors induces long-term potentiation. *European Journal of Pharmacology*, **1992**, 214, 297-8	5.3	70
199	A presynaptic kainate receptor is involved in regulating the dynamic properties of thalamocortical synapses during development. *Neuron*, **2002**, 34, 635-46	13.9	69
198	Characterization of an N-methyl-D-aspartate receptor component of synaptic transmission in rat hippocampal slices. *Neuroscience*, **1987**, 22, 1-8	3.9	69
197	Presynaptic mechanisms involved in the expression of STP and LTP at CA1 synapses in the hippocampus. *Neuropharmacology*, **2007**, 52, 1-11	5.5	67
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195	The small GTPase Arf1 modulates Arp2/3-mediated actin polymerization via PICK1 to regulate synaptic plasticity. *Neuron*, **2013**, 79, 293-307	13.9	65

194	Localization of the glutamate receptor subunit GluR1 on the surface of living and within cultured hippocampal neurons. *Neuroscience*, **1996**, 75, 69-82	3.9	65
193	The regulation of hippocampal LTP by the molecular switch, a form of metaplasticity, requires mGlu5 receptors. *Neuropharmacology*, **2005**, 49 Suppl 1, 13-25	5.5	64
192	Synaptic activation of a presynaptic kainate receptor facilitates AMPA receptor-mediated synaptic transmission at hippocampal mossy fibre synapses. *Neuropharmacology*, **2001**, 41, 907-15	5.5	64
191	Multiple, developmentally regulated expression mechanisms of long-term potentiation at CA1 synapses. *Journal of Neuroscience*, **2004**, 24, 4903-11	6.6	63
190	Pharmacological evidence for an involvement of group II and group III mGluRs in the presynaptic regulation of excitatory synaptic responses in the CA1 region of rat hippocampal slices. *Neuropharmacology*, **1995**, 34, 973-82	5.5	63
189	Targeting synaptic dysfunction in Alzheimer's disease therapy. *Molecular Neurobiology*, **2012**, 46, 572-87	6.2	62
188	The synaptic activation of the GluR5 subtype of kainate receptor in area CA3 of the rat hippocampus. *Neuropharmacology*, **1997**, 36, 1477-81	5.5	62
187	Studies on the role of metabotropic glutamate receptors in long-term potentiation: some methodological considerations. *Journal of Neuroscience Methods*, **1995**, 59, 19-24	3	61
186	A novel, competitive mGlu(5) receptor antagonist (LY344545) blocks DHPG-induced potentiation of NMDA responses but not the induction of LTP in rat hippocampal slices. *British Journal of Pharmacology*, **2000**, 131, 239-44	8.6	60
185	Calcium-Permeable AMPA Receptors Mediate the Induction of the Protein Kinase A-Dependent Component of Long-Term Potentiation in the Hippocampus. *Journal of Neuroscience*, **2016**, 36, 622-31	6.6	59
184	Different NMDA receptor subtypes mediate induction of long-term potentiation and two forms of short-term potentiation at CA1 synapses in rat hippocampus in vitro. *Journal of Physiology*, **2013**, 591, 955-72	3.9	58
183	Tyrosine dephosphorylation regulates AMPAR internalisation in mGluR-LTD. *Molecular and Cellular Neurosciences*, **2009**, 40, 267-79	4.8	58
182	A characterization of muscarinic receptor-mediated intracellular Ca2+ mobilization in cultured rat hippocampal neurones. *Journal of Physiology*, **1998**, 511 (Pt 3), 747-59	3.9	58
181	Synthesis and pharmacological characterization of N3-substituted willardiine derivatives: role of the substituent at the 5-position of the uracil ring in the development of highly potent and selective GLUK5 kainate receptor antagonists. *Journal of Medicinal Chemistry*, **2007**, 50, 1558-70	8.3	58
180	A role for protein kinase C in a form of metaplasticity that regulates the induction of long-term potentiation at CA1 synapses of the adult rat hippocampus. *European Journal of Neuroscience*, **2000**, 12, 4055-62	3.5	57
179	Plasticity of metabotropic glutamate receptor-dependent long-term depression in the anterior cingulate cortex after amputation. *Journal of Neuroscience*, **2012**, 32, 11318-29	6.6	56
178	Effect of tetanus toxin on transmitter release from substantia nigra and striatum in vitro. *Journal of Neurochemistry*, **1980**, 34, 540-7	6	55
177	Intracellular oligomeric amyloid-beta rapidly regulates GluA1 subunit of AMPA receptor in the hippocampus. *Scientific Reports*, **2015**, 5, 10934	4.9	54

176	A novel mechanism of hippocampal LTD involving muscarinic receptor-triggered interactions between AMPARs, GRIP and liprin-alpha. *Molecular Brain*, **2009**, 2, 18	4.5	53
175	Phosphatidylinositol 3 kinase regulates synapse specificity of hippocampal long-term depression. *Nature Neuroscience*, **2002**, 5, 835-6	25.5	53
174	On the mechanism of long-term potentiation induced by (1S,3R)-1-aminocyclopentane-1,3-dicarboxylic acid (ACPD) in rat hippocampal slices. *Neuropharmacology*, **1995**, 34, 1003-14	5.5	53
173	Antagonism of the synaptic depressant actions of L-AP4 in the lateral perforant path by MAP4. *Neuropharmacology*, **1995**, 34, 239-41	5.5	52
172	Ca2+ and synaptic plasticity. *Cell Calcium*, **1998**, 24, 377-85	4	51
171	Activation of a K-252b-Sensitive Protein Kinase is Necessary for a Post-Synaptic Phase of Long-Term Potentiation in Area CA1 of Rat Hippocampus. *European Journal of Neuroscience*, **1990**, 2, 481-6	3.5	51
170	Bi-directional modulation of AMPA receptor unitary conductance by synaptic activity. *BMC Neuroscience*, **2004**, 5, 44	3.2	50
169	The brain slice preparation: a tribute to the pioneer Henry McIlwain. *Journal of Neuroscience Methods*, **1995**, 59, 5-9	3	50
168	Long-term potentiation of synaptic transmission in the adult mouse insular cortex: multielectrode array recordings. *Journal of Neurophysiology*, **2013**, 110, 505-21	3.2	49
167	Involvement of calcium/calmodulin-dependent protein kinases in the setting of a molecular switch involved in hippocampal LTP. *Neuropharmacology*, **1998**, 37, 535-44	5.5	49
166	Shank mutant mice as an animal model of autism. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, 20130143	5.8	47
165	Structure-activity relationship studies on N3-substituted willardiine derivatives acting as AMPA or kainate receptor antagonists. *Journal of Medicinal Chemistry*, **2006**, 49, 2579-92	8.3	47
164	Protein phosphatase inhibitors facilitate DHPG-induced LTD in the CA1 region of the hippocampus. *British Journal of Pharmacology*, **2001**, 132, 1095-101	8.6	47
163	In vitro effect of tetanus toxin on GABA release form rat hippocampal slices. *Journal of Neurochemistry*, **1981**, 37, 1039-41	6	47
162	Tyrosine dephosphorylation underlies DHPG-induced LTD. *Neuropharmacology*, **2002**, 43, 175-80	5.5	46
161	Pharmacological Investigations of the Dissociative Legal Highs PDiphenidine, Methoxphenidine and Analogues. *PLoS ONE*, **2016**, 11, e0157021	3.7	46
160	The methylazoxymethanol acetate (MAM-E17) rat model: molecular and functional effects in the hippocampus. *Neuropsychopharmacology*, **2012**, 37, 364-77	8.7	45
159	Altered short-term synaptic plasticity in mice lacking the metabotropic glutamate receptor mGlu7. *Scientific World Journal, The*, **2002**, 2, 730-7	2.2	45

158	Activation of mGlu receptors induces LTD without affecting postsynaptic sensitivity of CA1 neurons in rat hippocampal slices. *Journal of Physiology*, **2003**, 546, 455-60	3.9	45
157	Parallel kinase cascades are involved in the induction of LTP at hippocampal CA1 synapses. *Neuropharmacology*, **2003**, 45, 828-36	5.5	45
156	Synthesis and pharmacology of willardiine derivatives acting as antagonists of kainate receptors. *Journal of Medicinal Chemistry*, **2005**, 48, 7867-81	8.3	44
155	Activation of the NO-cGMP signalling pathway depresses hippocampal synaptic transmission through an adenosine receptor-dependent mechanism. *Neuropharmacology*, **1994**, 33, 1511-3	5.5	44
154	Kainate receptors and the induction of mossy fibre long-term potentiation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2003**, 358, 657-66	5.8	43
153	Interactions of 2,3-benzodiazepines and cyclothiazide at AMPA receptors: patch clamp recordings in cultured neurones and area CA1 in hippocampal slices. *British Journal of Pharmacology*, **1996**, 117, 1209-21	8.6	43
152	Ketamine blocks an NMDA receptor-mediated component of synaptic transmission in rat hippocampus in a voltage-dependent manner. *Neuroscience Letters*, **1988**, 92, 213-7	3.3	43
151	Metabotropic glutamate receptors and calcium signalling in dendrites of hippocampal CA1 neurones. *Neuropharmacology*, **1993**, 32, 1229-37	5.5	42
150	Actions of substance P and opiates in the rat substantia nigra. *Neuropharmacology*, **1982**, 21, 715-9	5.5	42
149	Characterisation of the effects of ATPA, a GLU(K5) receptor selective agonist, on excitatory synaptic transmission in area CA1 of rat hippocampal slices. *Neuropharmacology*, **2002**, 42, 889-902	5.5	41
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