

# Pablo E Castillo

## List of Publications by Year in descending order

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Version: 2024-02-01

100  
papers

14,232  
citations

34016

52  
h-index

37111

96  
g-index

126  
all docs

126  
docs citations

126  
times ranked

13331  
citing authors

#	ARTICLE	IF	CITATIONS
1	Donor-derived vasculature is required to support neocortical cell grafts after stroke. <i>Stem Cell Research</i> , 2022, 59, 102642.	0.3	7
2	Activation of Extrasynaptic Kainate Receptors Drives Hilar Mossy Cell Activity. <i>Journal of Neuroscience</i> , 2022, 42, 2872-2884.	1.7	8
3	Presynaptic FMRP and local protein synthesis support structural and functional plasticity of glutamatergic axon terminals. <i>Neuron</i> , 2022, 110, 2588-2606.e6.	3.8	29
4	Unique transsynaptic complexes enable long-term synaptic plasticity in a synapse-specific manner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	0
5	CPEB3-dependent increase in GluA2 subunits impairs excitatory transmission onto inhibitory interneurons in a mouse model of fragile X. <i>Cell Reports</i> , 2022, 39, 110853.	2.9	5
6	The ins and outs of inhibitory synaptic plasticity: Neuron types, molecular mechanisms and functional roles. <i>European Journal of Neuroscience</i> , 2021, 54, 6882-6901.	1.2	16
7	Modulation of NMDA Receptors by G-protein-coupled receptors: Role in Synaptic Transmission, Plasticity and Beyond. <i>Neuroscience</i> , 2021, 456, 27-42.	1.1	27
8	Retrograde Suppression of Post-Tetanic Potentiation at the Mossy Fiber-CA3 Pyramidal Cell Synapse. <i>ENeuro</i> , 2021, 8, ENEURO.0450-20.2021.	0.9	2
9	Presynaptic NMDA receptors facilitate short-term plasticity and BDNF release at hippocampal mossy fiber synapses. <i>ELife</i> , 2021, 10, .	2.8	20
10	Multiple cannabinoid signaling cascades powerfully suppress recurrent excitation in the hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	19
11	Excitatory and inhibitory receptors utilize distinct post- and trans-synaptic mechanisms in vivo. <i>ELife</i> , 2021, 10, .	2.8	5
12	Altered synaptic connectivity and brain function in mice lacking microglial adapter protein Iba1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	35
13	CB1-receptor-mediated inhibitory LTD triggers presynaptic remodeling via protein synthesis and ubiquitination. <i>ELife</i> , 2020, 9, .	2.8	19
14	Sam68 Enables Metabotropic Glutamate Receptor-Dependent LTD in Distal Dendritic Regions of CA1 Hippocampal Neurons. <i>Cell Reports</i> , 2019, 29, 1789-1799.e6.	2.9	9
15	Npas4 Is a Critical Regulator of Learning-Induced Plasticity at Mossy Fiber-CA3 Synapses during Contextual Memory Formation. <i>Neuron</i> , 2018, 97, 1137-1152.e5.	3.8	68
16	Long-Term Plasticity of Neurotransmitter Release: Emerging Mechanisms and Contributions to Brain Function and Disease. <i>Annual Review of Neuroscience</i> , 2018, 41, 299-322.	5.0	120
17	Neurotrophin and FGF Signaling Adapter Proteins, FRS2 and FRS3, Regulate Dentate Granule Cell Maturation and Excitatory Synaptogenesis. <i>Neuroscience</i> , 2018, 369, 192-201.	1.1	9
18	Synaptic functions of endocannabinoid signaling in health and disease. <i>Neuropharmacology</i> , 2017, 124, 13-24.	2.0	180

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19	Closing the gap: long-term presynaptic plasticity in brain function and disease. <i>Current Opinion in Neurobiology</i> , 2017, 45, 106-112.	2.0	46
20	LTP at Hilar Mossy Cell-Dentate Granule Cell Synapses Modulates Dentate Gyrus Output by Increasing Excitation/Inhibition Balance. <i>Neuron</i> , 2017, 95, 928-943.e3.	3.8	71
21	Unconventional NMDA Receptor Signaling. <i>Journal of Neuroscience</i> , 2017, 37, 10800-10807.	1.7	99
22	Oxytocin improves behavioral and electrophysiological deficits in a novel Shank3-deficient rat. <i>ELife</i> , 2017, 6, .	2.8	136
23	De novo synaptogenesis induced by GABA in the developing mouse cortex. <i>Science</i> , 2016, 353, 1037-1040.	6.0	164
24	CaMKII Phosphorylation of TARPs Is a Mediator of LTP and Learning and Memory. <i>Neuron</i> , 2016, 92, 75-83.	3.8	101
25	Presynaptic Protein Synthesis Is Required for Long-Term Plasticity of GABA Release. <i>Neuron</i> , 2016, 92, 479-492.	3.8	162
26	Targeted deletion of AKAP7 in dentate granule cells impairs spatial discrimination. <i>ELife</i> , 2016, 5, .	2.8	33
27	ANKS1B Gene Product AIDA-1 Controls Hippocampal Synaptic Transmission by Regulating GluN2B Subunit Localization. <i>Journal of Neuroscience</i> , 2015, 35, 8986-8996.	1.7	36
28	Coordination between Translation and Degradation Regulates Inducibility of mGluR-LTD. <i>Cell Reports</i> , 2015, 10, 1459-1466.	2.9	39
29	Selective Dysregulation of Hippocampal Inhibition in the Mouse Lacking Autism Candidate Gene <i>CNTNAP2</i> . <i>Journal of Neuroscience</i> , 2015, 35, 14681-14687.	1.7	61
30	Actinin-4 Governs Dendritic Spine Dynamics and Promotes Their Remodeling by Metabotropic Glutamate Receptors. <i>Journal of Biological Chemistry</i> , 2015, 290, 15909-15920.	1.6	41
31	A Combined Optogenetic-Knockdown Strategy Reveals a Major Role of Tomosyn in Mossy Fiber Synaptic Plasticity. <i>Cell Reports</i> , 2015, 12, 396-404.	2.9	32
32	APP and APLP2 interact with the synaptic release machinery and facilitate transmitter release at hippocampal synapses. <i>ELife</i> , 2015, 4, e09743.	2.8	73
33	Compartment-Specific Modulation of GABAergic Synaptic Transmission by TRPV1 Channels in the Dentate Gyrus. <i>Journal of Neuroscience</i> , 2014, 34, 16621-16629.	1.7	50
34	Endogenous cannabinoid signaling at inhibitory interneurons. <i>Current Opinion in Neurobiology</i> , 2014, 26, 42-50.	2.0	41
35	The Rac1 Inhibitor NSC23766 Suppresses CREB Signaling by Targeting NMDA Receptor Function. <i>Journal of Neuroscience</i> , 2014, 34, 14006-14012.	1.7	23
36	Synucleins Regulate the Kinetics of Synaptic Vesicle Endocytosis. <i>Journal of Neuroscience</i> , 2014, 34, 9364-9376.	1.7	237

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37	Bidirectional NMDA receptor plasticity controls CA3 output and heterosynaptic metaplasticity. <i>Nature Neuroscience</i> , 2013, 16, 1049-1059.	7.1	55
38	CA1 Pyramidal Cell Theta-Burst Firing Triggers Endocannabinoid-Mediated Long-Term Depression at Both Somatic and Dendritic Inhibitory Synapses. <i>Journal of Neuroscience</i> , 2013, 33, 13743-13757.	1.7	41
39	RNA-binding protein Sam68 controls synapse number and local $\beta$ -actin mRNA metabolism in dendrites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 3125-3130.	3.3	55
40	Presenilin-ryanodine receptor connection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14825-14826.	3.3	10
41	Synaptotagmin-12 Phosphorylation by cAMP-Dependent Protein Kinase Is Essential for Hippocampal Mossy Fiber LTP. <i>Journal of Neuroscience</i> , 2013, 33, 9769-9780.	1.7	36
42	Neuroigin1 Drives Synaptic and Behavioral Maturation through Intracellular Interactions. <i>Journal of Neuroscience</i> , 2013, 33, 9364-9384.	1.7	23
43	REST-dependent epigenetic remodeling promotes the developmental switch in synaptic NMDA receptors. <i>Nature Neuroscience</i> , 2012, 15, 1382-1390.	7.1	176
44	Neto1 and Neto2: auxiliary subunits that determine key properties of native kainate receptors. <i>Journal of Physiology</i> , 2012, 590, 2217-2223.	1.3	57
45	Endocannabinoid Signaling and Synaptic Function. <i>Neuron</i> , 2012, 76, 70-81.	3.8	824
46	Presynaptic LTP and LTD of Excitatory and Inhibitory Synapses. <i>Cold Spring Harbor Perspectives in Biology</i> , 2012, 4, a005728-a005728.	2.3	129
47	Synaptic plasticity of NMDA receptors: mechanisms and functional implications. <i>Current Opinion in Neurobiology</i> , 2012, 22, 496-508.	2.0	270
48	Estradiol Attenuates Ischemia-Induced Death of Hippocampal Neurons and Enhances Synaptic Transmission in Aged, Long-Term Hormone-Deprived Female Rats. <i>PLoS ONE</i> , 2012, 7, e38018.	1.1	20
49	The Battle over Inhibitory Synaptic Plasticity in Satiety Brain Circuits. <i>Neuron</i> , 2011, 71, 385-387.	3.8	0
50	Distinct functions of kainate receptors in the brain are determined by the auxiliary subunit Neto1. <i>Nature Neuroscience</i> , 2011, 14, 866-873.	7.1	111
51	Long-term plasticity at inhibitory synapses. <i>Current Opinion in Neurobiology</i> , 2011, 21, 328-338.	2.0	191
52	Rab3B protein is required for long-term depression of hippocampal inhibitory synapses and for normal reversal learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14300-14305.	3.3	62
53	The extent and strength of electrical coupling between inferior olivary neurons is heterogeneous. <i>Journal of Neurophysiology</i> , 2011, 105, 1089-1101.	0.9	86
54	Endocannabinoid Mediated Long-Term Depression at Inhibitory Synapses. , 2011, , 149-166.		0

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55	TRPV1 activation by endogenous anandamide triggers postsynaptic long-term depression in dentate gyrus. <i>Nature Neuroscience</i> , 2010, 13, 1511-1518.	7.1	291
56	Dopaminergic Modulation of Endocannabinoid-Mediated Plasticity at GABAergic Synapses in the Prefrontal Cortex. <i>Journal of Neuroscience</i> , 2010, 30, 7236-7248.	1.7	129
57	Piccolo and bassoon maintain synaptic vesicle clustering without directly participating in vesicle exocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 6504-6509.	3.3	168
58	$\hat{1}\hat{2}\hat{3}$ -Synuclein triple knockout mice reveal age-dependent neuronal dysfunction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 19573-19578.	3.3	261
59	Age-Dependent Impairment of Cognitive and Synaptic Function in the htau Mouse Model of Tau Pathology. <i>Journal of Neuroscience</i> , 2009, 29, 10741-10749.	1.7	306
60	Endocannabinoid Signaling and Long-Term Synaptic Plasticity. <i>Annual Review of Physiology</i> , 2009, 71, 283-306.	5.6	400
61	ELKS2 $\hat{1}\hat{2}$ /CAST Deletion Selectively Increases Neurotransmitter Release at Inhibitory Synapses. <i>Neuron</i> , 2009, 64, 227-239.	3.8	96
62	Long-Term Potentiation Selectively Expressed by NMDA Receptors at Hippocampal Mossy Fiber Synapses. <i>Neuron</i> , 2008, 57, 108-120.	3.8	134
63	The Ups and Downs of Translation-Dependent Plasticity. <i>Neuron</i> , 2008, 59, 1-3.	3.8	11
64	Role of Glutamate Autoreceptors at Hippocampal Mossy Fiber Synapses. <i>Neuron</i> , 2008, 60, 1082-1094.	3.8	68
65	Input-specific plasticity at excitatory synapses mediated by endocannabinoids in the dentate gyrus. <i>Neuropharmacology</i> , 2008, 54, 68-78.	2.0	55
66	RIM1 $\hat{1}\hat{2}$ and RIM1 $\hat{2}$ Are Synthesized from Distinct Promoters of the <i>RIM1</i> Gene to Mediate Differential But Overlapping Synaptic Functions. <i>Journal of Neuroscience</i> , 2008, 28, 13435-13447.	1.7	84
67	RIM1 $\hat{1}\hat{2}$ phosphorylation at serine-413 by protein kinase A is not required for presynaptic long-term plasticity or learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 14680-14685.	3.3	69
68	Interneuron activity controls endocannabinoid-mediated presynaptic plasticity through calcineurin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 10250-10255.	3.3	102
69	Endocannabinoid-Mediated Long-Term Plasticity Requires cAMP/PKA Signaling and RIM1 $\hat{1}\hat{2}$ . <i>Neuron</i> , 2007, 54, 801-812.	3.8	238
70	Endocannabinoid-Mediated Long-Term Plasticity Requires cAMP/PKA Signaling and RIM1 $\hat{1}\hat{2}$ . <i>Neuron</i> , 2007, 55, 169.	3.8	2
71	ENDOCANNABINOID-MEDIATED SYNAPTIC PLASTICITY IN THE CNS. <i>Annual Review of Neuroscience</i> , 2006, 29, 37-76.	5.0	691
72	The CB1 cannabinoid receptor mediates glutamatergic synaptic suppression in the hippocampus. <i>Neuroscience</i> , 2006, 139, 795-802.	1.1	129

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73	Biochemical confinements without walls in aspiny neurons. <i>Nature Neuroscience</i> , 2006, 9, 719-720.	7.1	3
74	Protein kinase A regulates calcium permeability of NMDA receptors. <i>Nature Neuroscience</i> , 2006, 9, 501-510.	7.1	275
75	Redundant functions of RIM1 $\pm$ and RIM2 $\pm$ in Ca <sup>2+</sup> -triggered neurotransmitter release. <i>EMBO Journal</i> , 2006, 25, 5852-5863.	3.5	120
76	Transsynaptic Dialogue Between Excitatory and Inhibitory Hippocampal Synapses via Endocannabinoids. , 2005, , 221-235.		0
77	Blockade of calcium-permeable AMPA receptors protects hippocampal neurons against global ischemia-induced death. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 12230-12235.	3.3	220
78	A single in-vivo exposure to $\delta^9$ THC blocks endocannabinoid-mediated synaptic plasticity. <i>Nature Neuroscience</i> , 2004, 7, 585-586.	7.1	196
79	Double-knockout mice for $\hat{A}$ - and $\hat{A}$ -synucleins: Effect on synaptic functions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 14966-14971.	3.3	392
80	Endocannabinoid-Mediated Metaplasticity in the Hippocampus. <i>Neuron</i> , 2004, 43, 871-881.	3.8	274
81	Heterosynaptic LTD of Hippocampal GABAergic Synapses. <i>Neuron</i> , 2003, 38, 461-472.	3.8	581
82	Heterosynaptic LTD of Hippocampal GABAergic Synapses. <i>Neuron</i> , 2003, 38, 997.	3.8	3
83	Assessing the role of Ih channels in synaptic transmission and mossy fiber LTP. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 9538-9543.	3.3	177
84	RIM1 $\pm$ forms a protein scaffold for regulating neurotransmitter release at the active zone. <i>Nature</i> , 2002, 415, 321-326.	13.7	552
85	RIM1 $\pm$ is required for presynaptic long-term potentiation. <i>Nature</i> , 2002, 415, 327-330.	13.7	377
86	Mice Lacking $\hat{A}$ -Synuclein Display Functional Deficits in the Nigrostriatal Dopamine System. <i>Neuron</i> , 2000, 25, 239-252.	3.8	1,573
87	Multiple and Opposing Roles of Cholinergic Transmission in the Main Olfactory Bulb. <i>Journal of Neuroscience</i> , 1999, 19, 9180-9191.	1.7	144
88	Altered synaptic physiology and reduced susceptibility to kainate-induced seizures in GluR6-deficient mice. <i>Nature</i> , 1998, 392, 601-605.	13.7	450
89	Kainate receptors mediate a slow postsynaptic current in hippocampal CA3 neurons. <i>Nature</i> , 1997, 388, 182-186.	13.7	504
90	Rab3A is essential for mossy fibre long-term potentiation in the hippocampus. <i>Nature</i> , 1997, 388, 590-593.	13.7	336

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91	Characterizing the Site and Mode of Action of Dynorphin at Hippocampal Mossy Fiber Synapses in the Guinea Pig. <i>Journal of Neuroscience</i> , 1996, 16, 5942-5950.	1.7	41
92	Experimental analysis of the method of "peeling" exponentials for measuring passive electrical properties of mammalian motoneurons. <i>Brain Research</i> , 1995, 675, 241-248.	1.1	17
93	Evidence against a role for metabotropic glutamate receptors in mossy fiber LTP: the use of mutant mice and pharmacological antagonists. <i>Neuropharmacology</i> , 1995, 34, 1567-1572.	2.0	43
94	Pharmacology of metabotropic glutamate receptors at the mossy fiber synapses of the guinea pig hippocampus. <i>Neuropharmacology</i> , 1995, 34, 965-971.	2.0	98
95	The control of jaw-opener motoneurons during active sleep. <i>Brain Research</i> , 1994, 653, 31-38.	1.1	58
96	The role of Ca <sup>2+</sup> channels in hippocampal mossy fiber synaptic transmission and long-term potentiation. <i>Neuron</i> , 1994, 12, 261-269.	3.8	317
97	28 The role of Ca <sup>2+</sup> in transmitter release and long-term potentiation at hippocampal mossy fiber synapses. <i>Advances in Second Messenger and Phosphoprotein Research</i> , 1994, 29, 497-505.	4.5	6
98	A medullary inhibitory region for trigeminal motoneurons in the cat. <i>Brain Research</i> , 1991, 549, 346-349.	1.1	20
99	Strychnine blockade of the non-reciprocal inhibition of trigeminal motoneurons induced by stimulation of the parvocellular reticular formation. <i>Brain Research</i> , 1991, 567, 346-349.	1.1	18
100	Non-reciprocal postsynaptic inhibition of digastric motoneurons. <i>Brain Research</i> , 1990, 535, 339-342.	1.1	9