Carlo Sala

List of Publications by Year
in descending order

#	Article	IF	Citations
1	PDZ Domains and the Organization of Supramolecular Complexes. Annual Review of Neuroscience, 2001, 24, 1-29.	10.7	1,167
2	Shank, a Novel Family of Postsynaptic Density Proteins that Binds to the NMDA Receptor/PSD-95/GKAP Complex and Cortactin. Neuron, 1999, 23, 569-582.	8.1	934
3	Regulation of Dendritic Spine Morphology and Synaptic Function by Shank and Homer. Neuron, 2001, 31, 115-130.	8.1	630
4	SynGO: An Evidence-Based, Expert-Curated Knowledge Base for the Synapse. Neuron, 2019, 103, 217-234.e4.	8.1	518
5	Dendritic Spines: The Locus of Structural and Functional Plasticity. Physiological Reviews, 2014, 94, 141-188.	28.8	399
6	The Postsynaptic Density Proteins Homer and Shank Form a Polymeric Network Structure. Cell, 2009, 137, 159-171.	28.9	324
7	Smaller Dendritic Spines, Weaker Synaptic Transmission, but Enhanced Spatial Learning in Mice Lacking Shank1. Journal of Neuroscience, 2008, 28, 1697-1708.	3.6	321
8	Extracellular Interactions between GluR2 and N-Cadherin in Spine Regulation. Neuron, 2007, 54, 461-477.	8.1	313
9	Induction of dendritic spines by an extracellular domain of AMPA receptor subunit GluR2. Nature, 2003, 424, 677-681.	27.8	285
10	Shank Expression Is Sufficient to Induce Functional Dendritic Spine Synapses in Aspiny Neurons. Journal of Neuroscience, 2005, 25, 3560-3570.	3.6	263
11	Interaction of the Postsynaptic Density-95/Guanylate Kinase Domain-Associated Protein Complex with a Light Chain of Myosin-V and Dynein. Journal of Neuroscience, 2000, 20, 4524-4534.	3.6	245
12	LRRK2 Controls Synaptic Vesicle Storage and Mobilization within the Recycling Pool. Journal of Neuroscience, 2011, 31, 2225-2237.	3.6	240
13	Inhibition of Dendritic Spine Morphogenesis and Synaptic Transmission by Activity-Inducible Protein Homer1a. Journal of Neuroscience, 2003, 23, 6327-6337.	3.6	232
14	CDKL5 ensures excitatory synapse stability by reinforcing NGL-1â€“PSD95 interaction in the postsynaptic compartment and is impaired in patient iPSC-derived neurons. Nature Cell Biology, 2012, 14, 911-923.	10.3	231
15	A Preformed Complex of Postsynaptic Proteins Is Involved in Excitatory Synapse Development. Neuron, 2006, 49, 547-562.	8.1	188
16	Developmentally Regulated NMDA Receptor-Dependent Dephosphorylation of cAMP Response Element-Binding Protein (CREB) in Hippocampal Neurons. Journal of Neuroscience, 2000, 20, 3529-3536.	3.6	185
17	AMPA receptorâ€“PDZ interactions in facilitation of spinal sensory synapses. Nature Neuroscience, 1999, 2, 972-977.	14.8	180
18	Importance of Shank3 Protein in Regulating Metabotropic Glutamate Receptor 5 (mGluR5) Expression and Signaling at Synapses. Journal of Biological Chemistry, 2011, 286, 34839-34850.	3.4	180

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19	Synapse-Associated Protein-97 Mediates Î±-Secretase ADAM10 Trafficking and Promotes Its Activity. Journal of Neuroscience, 2007, 27, 1682-1691.	3.6	164
20	Shank synaptic scaffold proteins: keys to understanding the pathogenesis of autism andÂother synaptic disorders. Journal of Neurochemistry, 2015, 135, 849-858.	3.9	152
21	Key Role of the Postsynaptic Density Scaffold Proteins Shank and Homer in the Functional Architecture of Ca2+ Homeostasis at Dendritic Spines in Hippocampal Neurons. Journal of Neuroscience, 2005, 25, 4587-4592.	3.6	150
22	Sharpin, a Novel Postsynaptic Density Protein That Directly Interacts with the Shank Family of Proteins. Molecular and Cellular Neurosciences, 2001, 17, 385-397.	2.2	145
23	Alternative Splicing of the Histone Demethylase LSD1/KDM1 Contributes to the Modulation of Neurite Morphogenesis in the Mammalian Nervous System. Journal of Neuroscience, 2010, 30, 2521-2532.	3.6	138
24	Pharmacological enhancement of mGlu5 receptors rescues behavioral deficits in SHANK3 knock-out mice. Molecular Psychiatry, 2017, 22, 689-702.	7.9	134
25	Distribution of Nicotinic Receptors in the Human Hippocampus and Thalamus. European Journal of Neuroscience, 1994, 6, 1596-1604.	2.6	130
26	Supramodular structure and synergistic target binding of the N-terminal tandem PDZ domains of PSD-95. Journal of Molecular Biology, 2003, 327, 203-214.	4.2	128
27	Synaptic Activity Controls Dendritic Spine Morphology by Modulating eEF2-Dependent BDNF Synthesis. Journal of Neuroscience, 2010, 30, 5830-5842.	3.6	128
28	Phosphorylation of neuronal Lysineâ€Specific Demethylase 1LSD1/KDM1A impairs transcriptional repression by regulating interaction with CoREST and histone deacetylases HDAC1/2. Journal of Neurochemistry, 2014, 128, 603-616.	3.9	112
29	Fluorescent nanodiamond tracking reveals intraneuronal transport abnormalities induced by brain-disease-related genetic risk factors. Nature Nanotechnology, 2017, 12, 322-328.	31.5	111
30	The fragile X mental retardation proteinâ€"RNP granules show an mGluR-dependent localization in the post-synaptic spines. Molecular and Cellular Neurosciences, 2007, 34, 343-354.	2.2	108
31	A Postsynaptic Signaling Pathway that May Account for the Cognitive Defect Due to IL1RAPL1 Mutation. Current Biology, 2010, 20, 103-115.	3.9	106
32	Developmental vulnerability of synapses and circuits associated with neuropsychiatric disorders. Journal of Neurochemistry, 2013, 126, 165-182.	3.9	106
33	Microtubule binding by CRIPT and its potential role in the synaptic clustering of PSD-95. Nature Neuroscience, 1999, 2, 1063-1069.	14.8	102
34	Synaptic Localization and Activity of ADAM10 Regulate Excitatory Synapses through N-Cadherin Cleavage. Journal of Neuroscience, 2010, 30, 16343-16355.	3.6	102
35	Combined targeting of interleukinâ€6 and vascular endothelial growth factor potently inhibits glioma growth and invasiveness. International Journal of Cancer, 2009, 125, 1054-1064.	5.1	98
36	The X-linked intellectual disability protein IL1RAPL1 regulates excitatory synapse formation by binding PTPÎ´ and RhoGAP2. Human Molecular Genetics, 2011, 20, 4797-4809.	2.9	97

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37	The X-Linked Intellectual Disability Protein TSPAN7 Regulates Excitatory Synapse Development and AMPAR Trafficking. Neuron, 2012, 73, 1143-1158.	8.1	97
38	Expression of Cocaine-Evoked Synaptic Plasticity by GluN3A-Containing NMDA Receptors. Neuron, 2013, 80, 1025-1038.	8.1	97
39	Leucine-Rich Repeat Kinase 2 Binds to Neuronal Vesicles through Protein Interactions Mediated by Its C-Terminal WD40 Domain. Molecular and Cellular Biology, 2014, 34, 2147-2161.	2.3	91
40	Elongation factor-2 phosphorylation in dendrites and the regulation of dendritic mRNA translation in neurons. Frontiers in Cellular Neuroscience, 2014, 8, 35.	3.7	84
41	LRRK2 kinase activity regulates synaptic vesicle trafficking and neurotransmitter release through modulation of LRRK2 macro-molecular complex. Frontiers in Molecular Neuroscience, 2014, 7, 49.	2.9	82
42	A Functional Role of Postsynaptic Density-95-Guanylate Kinase-Associated Protein Complex in Regulating Shank Assembly and Stability to Synapses. Journal of Neuroscience, 2004, 24, 9391-9404.	3.6	81
43	IL-38 Ameliorates Skin Inflammation and Limits IL-17 Production from Î³Î´ T Cells. Cell Reports, 2019, 27, 835-846.e5.	6.4	68
44	DNA methylation regulates tissue-specific expression of Shank3. Journal of Neurochemistry, 2007, 101, 1380-1391.	3.9	67
45	Scaffold Proteins at the Postsynaptic Density. Advances in Experimental Medicine and Biology, 2012, 970, 29-61.	1.6	67
46	Proteomic Analysis of Post-synaptic Density Fractions from Shank3 Mutant Mice Reveals Brain Region Specific Changes Relevant to Autism Spectrum Disorder. Frontiers in Molecular Neuroscience, 2017, 10, 26.	2.9	66
47	Regulated RalBP1 Binding to RalA and PSD-95 Controls AMPA Receptor Endocytosis and LTD. PLoS Biology, 2009, 7, e1000187.	5.6	57
48	A circadian clock in hippocampus is regulated by interaction between oligophrenin-1 and Rev-erbÎ±. Nature Neuroscience, 2011, 14, 1293-1301.	14.8	57
49	A Cell Surface Biotinylation Assay to Reveal Membrane-associated Neuronal Cues: Negr1 Regulates Dendritic Arborization. Molecular and Cellular Proteomics, 2014, 13, 733-748.	3.8	57
50	eEF2K/eEF2 Pathway Controls the Excitation/Inhibition Balance and Susceptibility to Epileptic Seizures. Cerebral Cortex, 2017, 27, bhw075.	2.9	57
51	Morphology and neurophysiology of focal axonal injury experimentally induced in the guinea pig optic nerve. Acta Neuropathologica, 1990, 80, 506-513.	7.7	55
52	Paralemmin-1, a Modulator of Filopodia Induction Is Required for Spine Maturation. Molecular Biology of the Cell, 2008, 19, 2026-2038.	2.1	54
53	N-type Ca2+ Channels Are Present in Secretory Granules and Are Transiently Translocated to the Plasma Membrane during Regulated Exocytosis. Journal of Biological Chemistry, 1996, 271, 30096-30104.	3.4	53
54	Combination of temozolomide with immunocytokine F16â€"IL2 for the treatment of glioblastoma. British Journal of Cancer, 2010, 103, 827-836.	6.4	53

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55	SHANK3 Gene Mutations Associated with Autism Facilitate Ligand Binding to the Shank3 Ankyrin Repeat Region. Journal of Biological Chemistry, 2013, 288, 26697-26708.	3.4	52
56	Distribution of neuronal nicotinic receptor subunits in human brain. Neurochemistry International, 1994, 25, 69-71.	3.8	50
57	Immunohistochemical localization of neuronal nicotinic receptor subtypes at the pre- and postjunctional sites in mouse diaphragm muscle. Neuroscience Letters, 1995, 196, 13-16.	2.1	49
58	SHANK genes in autism: Defining therapeutic targets. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2018, 84, 416-423.	4.8	45
59	Developmentally regulated expression of calcitonin gene-related peptide at mammalian neuromuscular junction. Journal of Molecular Neuroscience, 1990, 2, 175-184.	2.3	41
60	NSF interaction is important for direct insertion of GluR2 at synaptic sites. Molecular and Cellular Neurosciences, 2005, 28, 650-660.	2.2	41
61	Organization of the Presynaptic Active Zone by ERC2/CAST1-Dependent Clustering of the Tandem PDZ Protein Syntenin-1. Journal of Neuroscience, 2006, 26, 963-970.	3.6	41
62	Proteomic Analysis of Activity-Dependent Synaptic Plasticity in Hippocampal Neurons. Journal of Proteome Research, 2007, 6, 3203-3215.	3.7	40
63	SAP97 Directs the Localization of Kv4.2 to Spines in Hippocampal Neurons. Journal of Biological Chemistry, 2007, 282, 28691-28699.	3.4	40
64	Dimerizable Redox-Sensitive Triazine-Based Cationic Lipids for inâ€...vitro Gene Delivery. ChemMedChem, 2007, 2, 292-296.	3.2	38
65	The fyn art of N-methyl-D-aspartate receptor phosphorylation. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 335-337.	7.1	37
66	Homer1 Scaffold Proteins Govern Ca2+ Dynamics in Normal and Reactive Astrocytes. Cerebral Cortex, 2017, 27, 2365-2384.	2.9	37
67	Synaptic Dysfunction and Intellectual Disability. Advances in Experimental Medicine and Biology, 2012, 970, 433-449.	1.6	36
68	The X-Linked Intellectual Disability Protein IL1RAPL1 Regulates Dendrite Complexity. Journal of Neuroscience, 2017, 37, 6606-6627.	3.6	36
69	High-Aspect-Ratio Semiconducting Polymer Pillars for 3D Cell Cultures. ACS Applied Materials & Interfaces, 2019, 11, 28125-28137.	8.0	33
70	Neuronal JNK pathway activation by IL-1 is mediated through IL1RAPL1, a protein required for development of cognitive functions. Communicative and Integrative Biology, 2010, 3, 245-247.	1.4	32
71	Molecular and synaptic defects in intellectual disability syndromes. Current Opinion in Neurobiology, 2012, 22, 530-536.	4.2	32
72	Phelan-McDermid syndrome: a classification system after 30Âyears of experience. Orphanet Journal of Rare Diseases, 2022, 17, 27.	2.7	32

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73	Functional and molecular defects of hiPSC-derived neurons from patients with ATM deficiency. Cell Death and Disease, 2014, 5, e1342-e1342.	6.3	31
74	Novel IL1RAPL1 mutations associated with intellectual disability impair synaptogenesis. Human Molecular Genetics, 2015, 24, 1106-1118.	2.9	31
75	Epilepsy and intellectual disability linked protein Shrm4 interaction with GABABRs shapes inhibitory neurotransmission. Nature Communications, 2017, 8, 14536.	12.8	31
76	The neuropeptide <u>PACAP38</u> induces dendritic spine remodeling through ADAM10/N-Cadherin signaling pathway. Journal of Cell Science, 2012, 125, 1401-6.	2.0	29
77	Antiangiogenic Therapy for Glioma. Journal of Signal Transduction, 2012, 2012, 1-15.	2.0	28
78	Comparative neuronal differentiation of self-renewing neural progenitor cell lines obtained from human induced pluripotent stem cells. Frontiers in Cellular Neuroscience, 2013, 7, 175.	3.7	28
79	Molecular Regulation of Dendritic Spine Shape and Function. NeuroSignals, 2002, 11, 213-223.	0.9	27
80	Glial degeneration with oxidative damage drives neuronal demise in MPSII disease. Cell Death and Disease, 2016, 7, e2331-e2331.	6.3	27
81	The Synaptic and Neuronal Functions of the Xâ€Linked Intellectual Disability Protein Interleukinâ€1 Receptor Accessory Protein Like 1 (IL1RAPL1). Developmental Neurobiology, 2019, 79, 85-95.	3.0	27
82	Developmental impaired Akt signaling in the Shank1 and Shank3 double knock-out mice. Molecular Psychiatry, 2021, 26, 1928-1944.	7.9	26
83	Molecular mechanisms of dendritic spine development and maintenance. Acta Neurobiologiae Experimentalis, 2008, 68, 289-304.	0.7	26
84	Restoring glutamate receptosome dynamics at synapses rescues autism-like deficits in Shank3-deficient mice. Molecular Psychiatry, 2021, 26, 7596-7609.	7.9	25
85	A dimerizable cationic lipid with potential for gene delivery. Journal of Gene Medicine, 2008, 10, 637-645.	2.8	24
86	N-methyl-d-aspartate receptor function in neuronal and synaptic development and signaling. Current Opinion in Pharmacology, 2021, 56, 93-101.	3.5	23
87	The differential role of cortical protein synthesis in taste memory formation and persistence. Npj Science of Learning, 2016, 1, 16001.	2.8	21
88	A Non-Canonical Initiation Site Is Required for Efficient Translation of the Dendritically Localized Shank1 mRNA. PLoS ONE, 2014, 9, e88518.	2.5	20
89	A literature overview on epilepsy and inflammasome activation. Brain Research Bulletin, 2021, 172, 229-235.	3.0	19
90	Expression of two neuronal nicotinic receptor subunits in innervated and denervated adult rat muscle. Neuroscience Letters, 1996, 215, 71-74.	2.1	18

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91	Mutations of the synapse genes and intellectual disability syndromes. European Journal of Pharmacology, 2013, 719, 112-116.	3.5	17
92	Adipocyte proteome and secretome influence inflammatory and hormone pathways in glioma. Metabolic Brain Disease, 2019, 34, 141-152.	2.9	17
93	Activation of the medial preoptic area (MPOA) ameliorates loss of maternal behavior in a <i>Shank2</i> mouse model for autism. EMBO Journal, 2021, 40, e104267.	7.8	16
94	Modulation of nicotinic acetylcholine receptor turnover by tyrosine phosphorylation in rat myotubes. Neuroscience Letters, 2001, 313, 37-40.	2.1	15
95	Eukaryotic Elongation Factor 2 Kinase a Pharmacological Target to Regulate Protein Translation Dysfunction in Neurological Diseases. Neuroscience, 2020, 445, 42-49.	2.3	15
96	The development of ADAM10 endocytosis inhibitors for the treatment of Alzheimerâ€™s disease. Molecular Therapy, 2022, 30, 2474-2490.	8.2	15
97	Thrombolytic activity of defibrotide: A morphometric evaluation in experimental venous thrombosis. Pharmacological Research, 1989, 21, 293-298.	7.1	11
98	Rescuing epileptic and behavioral alterations in a Dravet syndrome mouse model by inhibiting eukaryotic elongation factor 2 kinase (eEF2K). Molecular Autism, 2022, 13, 1.	4.9	10
99	Immunolocalisation of chromogranin B, secretogranin II, calcitonin gene-related peptide and substance P at developing and adult neuromuscular synapses. Neuroscience Letters, 1994, 174, 177-180.	2.1	9
100	Îµ Subunit-Containing Acetylcholine Receptors in Myotubes Belong to the Slowly Degrading Population. Journal of Neuroscience, 1997, 17, 8937-8944.	3.6	8
101	Molecular basis for prospective pharmacological treatment strategies in intellectual disability syndromes. Developmental Neurobiology, 2014, 74, 197-206.	3.0	8
102	Modelling genetic mosaicism of neurodevelopmental disorders in vivo by a Cre-amplifying fluorescent reporter. Nature Communications, 2020, 11, 6194.	12.8	8
103	Different attentional dysfunctions in <i>eEF2K</i>^{<i>â^ˆ'/â^ˆ'</i>}<i>, IL1RAPL1</i>^{<i>âˆ'/âˆ'</i>} and <i>SHANK3Î”11</i>^{<i>âˆ'/âˆ'</i>} mice. Genes, Brain and Behavior, 2019, 18, e12563.	2.2	7
104	Modelling Autistic Neurons with Induced Pluripotent Stem Cells. Advances in Anatomy, Embryology and Cell Biology, 2017, 224, 49-64.	1.6	5
105	Anti-Angiogenic Therapy Induces Integrin-Linked Kinase 1 Up-Regulation in a Mouse Model of Glioblastoma. PLoS ONE, 2010, 5, e13710.	2.5	4
106	Homer1b/c clustering is impaired in Phelan-McDermid Syndrome iPSCs derived neurons. Molecular Psychiatry, 2017, 22, 637-637.	7.9	4
107	Human induced pluripotent stem cells technology in treatment resistant depression: novel strategies and opportunities to unravel ketamineâ€™s fast-acting antidepressant mechanisms. Therapeutic Advances in Psychopharmacology, 2020, 10, 204512532096833.	2.7	4
108	Another step toward understanding brain functional connectivity alterations in autism. Journal of Neurochemistry, 2021, 159, 12-14.	3.9	4

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109	Role of subunit composition in determining acetylcholine receptor degradation rates in rat myotubes. Neuroscience Letters, 1998, 256, 1-4.	2.1	3
110	Structural and Functional Organization of the Postsynaptic Density. , 2014, , 129-153.		2
111	Editorial: Dendritic Spines: From Biophysics to Neuropathology. Frontiers in Synaptic Neuroscience, 2021, 13, 652117.	2.5	2
112	Postsynaptic molecular mechanisms. Preface. Advances in Experimental Medicine and Biology, 2012, 970, v-vi.	1.6	2
113	Tenotomy does not affect cgrp expression at the rat neuromuscular junction. Pharmacological Research, 1992, 25, 117-118.	7.1	1
114	Il-38 Restricts Skin Inflammation and Anti-Tumor Immunity by Limiting Il-17 Production from γδ T Cells. SSRN Electronic Journal, 2018, , .	0.4	1
115	The Up and Down of the N-Methyl-D-Aspartate Receptor That Causes Autism. Biological Psychiatry, 2019, 85, 530-531.	1.3	1
116	Induction of dendritic spines by an extracellular domain of AMPA receptor subunit GluR2. , 0, .		1
117	AMPA Receptor and Synaptic Plasticity. , 2004, , 65-77.		1
118	Regulation of Dendritic Spine Morphology and Synaptic Function By Scaffolding Proteins. , 2006, , 261-276.		0
119	1TA3-02 The Postsynaptic Density Proteins Homer and Shank Form a Polymeric Network Structure(The) Tj ETQq1 1 0.784314 rgBT /Ove	0.1	0
120	Spikar speaks to spines and nuclei. Journal of Neurochemistry, 2014, 128, 473-475.	3.9	0
121	Mutations in Synaptic Adhesion Molecules. , 2016, , 161-175.		0
122	SOD1 stimulates lamellipodial protrusions in Neuro 2A cell lines. Communicative and Integrative Biology, 2018, 11, 1-7.	1.4	0
123	Expression of two neuronal nicotinic receptor subunits in innervated and denervated adult rat muscle. Neuroscience Letters, 1996, 215, 71-74.	2.1	0