

# Kristen M Harris

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92  
papers

12,159  
citations

49  
h-index

97  
g-index

97  
ext. papers

13,554  
ext. citations

7.8  
avg, IF

6.59  
L-index

#	Paper	IF	Citations
92	Deep learning-based point-scanning super-resolution imaging. <i>Nature Methods</i> , <b>2021</b> , 18, 406-416	21.6	24
91	Shortened tethering filaments stabilize presynaptic vesicles in support of elevated release probability during LTP in rat hippocampus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
90	Ultrastructure of light-activated axons following optogenetic stimulation to produce late-phase long-term potentiation. <i>PLoS ONE</i> , <b>2020</b> , 15, e0226797	3.7	4
89	Structural LTP: from synaptogenesis to regulated synapse enlargement and clustering. <i>Current Opinion in Neurobiology</i> , <b>2020</b> , 63, 189-197	7.6	16
88	The Mind of a Mouse. <i>Cell</i> , <b>2020</b> , 182, 1372-1376	56.2	49
87	Developmental onset of enduring long-term potentiation in mouse hippocampus. <i>Hippocampus</i> , <b>2020</b> , 30, 1298-1312	3.5	3
86	Synaptic Odyssey. <i>Journal of Neuroscience</i> , <b>2020</b> , 40, 61-80	6.6	5
85	Local resources of polyribosomes and SER promote synapse enlargement and spine clustering after long-term potentiation in adult rat hippocampus. <i>Scientific Reports</i> , <b>2019</b> , 9, 3861	4.9	31
84	BRAIN Initiative: Cutting-Edge Tools and Resources for the Community. <i>Journal of Neuroscience</i> , <b>2019</b> , 39, 8275-8284	6.6	7
83	Structural plasticity of dendritic secretory compartments during LTP-induced synaptogenesis. <i>ELife</i> , <b>2019</b> , 8,	8.9	19
82	Long-term potentiation expands information content of hippocampal dentate gyrus synapses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E2410-E2418 <sup>11.5</sup>	11.5	33
81	Shifting patterns of polyribosome accumulation at synapses over the course of hippocampal long-term potentiation. <i>Hippocampus</i> , <b>2018</b> , 28, 416-430	3.5	19
80	Cover Image, Volume 28, Issue 6. <i>Hippocampus</i> , <b>2018</b> , 28, C1-C1	3.5	
79	Automated Serial Section Large-field Transmission-Mode Scanning Electron Microscopy (tSEM) for Volume Analysis of Hippocampus Ultrastructure. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 562-563	0.5	1
78	Dendritic Spines <b>2016</b> , 1-8		0
77	Mitochondrial support of persistent presynaptic vesicle mobilization with age-dependent synaptic growth after LTP. <i>ELife</i> , <b>2016</b> , 5,	8.9	53
76	Author response: Mitochondrial support of persistent presynaptic vesicle mobilization with age-dependent synaptic growth after LTP <b>2016</b> ,		4

75	LTP enhances synaptogenesis in the developing hippocampus. <i>Hippocampus</i> , <b>2016</b> , 26, 560-76	3.5	33
74	Structural Components of Synaptic Plasticity and Memory Consolidation. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2015</b> , 7, a021758	10.2	202
73	A resource from 3D electron microscopy of hippocampal neuropil for user training and tool development. <i>Scientific Data</i> , <b>2015</b> , 2, 150046	8.2	23
72	Computational reconstitution of spine calcium transients from individual proteins. <i>Frontiers in Synaptic Neuroscience</i> , <b>2015</b> , 7, 17	3.5	33
71	Nanoconnectomic upper bound on the variability of synaptic plasticity. <i>ELife</i> , <b>2015</b> , 4, e10778	8.9	144
70	Author response: Nanoconnectomic upper bound on the variability of synaptic plasticity <b>2015</b> ,		2
69	VolRoverN: enhancing surface and volumetric reconstruction for realistic dynamical simulation of cellular and subcellular function. <i>Neuroinformatics</i> , <b>2014</b> , 12, 277-89	3.2	11
68	Dynamics of nascent and active zone ultrastructure as synapses enlarge during long-term potentiation in mature hippocampus. <i>Journal of Comparative Neurology</i> , <b>2014</b> , 522, 3861-84	3.4	48
67	Augmenting saturated LTP by broadly spaced episodes of theta-burst stimulation in hippocampal area CA1 of adult rats and mice. <i>Journal of Neurophysiology</i> , <b>2014</b> , 112, 1916-24	3.2	20
66	Extracellular sheets and tunnels modulate glutamate diffusion in hippocampal neuropil. <i>Journal of Comparative Neurology</i> , <b>2013</b> , 521, 448-64	3.4	83
65	Presynaptic ultrastructural plasticity along CA3->CA1 axons during long-term potentiation in mature hippocampus. <i>Journal of Comparative Neurology</i> , <b>2013</b> , 521, 3898-912	3.4	38
64	Large-volume reconstruction of brain tissue from high-resolution serial section images acquired by SEM-based scanning transmission electron microscopy. <i>Methods in Molecular Biology</i> , <b>2013</b> , 950, 253-73	1.4	29
63	Automated transmission-mode scanning electron microscopy (tSEM) for large volume analysis at nanoscale resolution. <i>PLoS ONE</i> , <b>2013</b> , 8, e59573	3.7	48
62	Differential effects of strain, circadian cycle, and stimulation pattern on LTP and concurrent LTD in the dentate gyrus of freely moving rats. <i>Hippocampus</i> , <b>2012</b> , 22, 1363-70	3.5	39
61	Nanoscale analysis of structural synaptic plasticity. <i>Current Opinion in Neurobiology</i> , <b>2012</b> , 22, 372-82	7.6	53
60	Local zones of endoplasmic reticulum complexity confine cargo in neuronal dendrites. <i>Cell</i> , <b>2012</b> , 148, 309-21	56.2	143
59	Ultrastructure of synapses in the mammalian brain. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2012</b> , 4,	10.2	248
58	Developmental regulation of the late phase of long-term potentiation (L-LTP) and metaplasticity in hippocampal area CA1 of the rat. <i>Journal of Neurophysiology</i> , <b>2012</b> , 107, 902-12	3.2	29

57	SynapticDB, effective web-based management and sharing of data from serial section electron microscopy. <i>Neuroinformatics</i> , <b>2011</b> , 9, 39-57	3.2	
56	Coordination of size and number of excitatory and inhibitory synapses results in a balanced structural plasticity along mature hippocampal CA1 dendrites during LTP. <i>Hippocampus</i> , <b>2011</b> , 21, 354-73	3.5	208
55	GABAA receptor diversity revealed in freeze-fracture replica (commentary on Kasugai et al.). <i>European Journal of Neuroscience</i> , <b>2010</b> , 32, 1866-7	3.5	
54	Mitochondria: enigmatic stewards of the synaptic vesicle reserve pool. <i>Frontiers in Synaptic Neuroscience</i> , <b>2010</b> , 2, 145	3.5	2
53	Ultrastructural analysis of hippocampal neuropil from the connectomics perspective. <i>Neuron</i> , <b>2010</b> , 67, 1009-20	13.9	214
52	Boundary Learning by Optimization with Topological Constraints <b>2010</b> ,		62
51	Three-dimensional relationships between perisynaptic astroglia and human hippocampal synapses. <i>Glia</i> , <b>2010</b> , 58, 572-87	9	78
50	Anatomical and electrophysiological comparison of CA1 pyramidal neurons of the rat and mouse. <i>Journal of Neurophysiology</i> , <b>2009</b> , 102, 2288-302	3.2	68
49	Balancing structure and function at hippocampal dendritic spines. <i>Annual Review of Neuroscience</i> , <b>2008</b> , 31, 47-67	17	682
48	Plasticity of perisynaptic astroglia during synaptogenesis in the mature rat hippocampus. <i>Glia</i> , <b>2007</b> , 55, 13-23	9	201
47	Polyribosomes are increased in spines of CA1 dendrites 2 h after the induction of LTP in mature rat hippocampal slices. <i>Hippocampus</i> , <b>2007</b> , 17, 1-4	3.5	54
46	Do thin spines learn to be mushroom spines that remember?. <i>Current Opinion in Neurobiology</i> , <b>2007</b> , 17, 381-6	7.6	602
45	Warmer preparation of hippocampal slices prevents synapse proliferation that might obscure LTP-related structural plasticity. <i>Neuropharmacology</i> , <b>2007</b> , 52, 55-9	5.5	33
44	Dendrite structure <b>2007</b> , 1-41		16
43	Uniform serial sectioning for transmission electron microscopy. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 12101-16	13.6	154
42	Plasticity-induced growth of dendritic spines by exocytic trafficking from recycling endosomes. <i>Neuron</i> , <b>2006</b> , 52, 817-30	13.9	391
41	Synaptogenesis on mature hippocampal dendrites occurs via filopodia and immature spines during blocked synaptic transmission. <i>Journal of Comparative Neurology</i> , <b>2005</b> , 484, 183-90	3.4	93
40	Age-related changes in the number and structure of synapses in the lip region of the mushroom bodies in the ant <i>Pheidole dentata</i> . <i>Journal of Comparative Neurology</i> , <b>2005</b> , 488, 269-77	3.4	86

39	Trans-endocytosis via spinules in adult rat hippocampus. <i>Journal of Neuroscience</i> , <b>2004</b> , 24, 4233-41	6.6	91
38	Age-dependence in the homeostatic upregulation of hippocampal dendritic spine number during blocked synaptic transmission. <i>Neuropharmacology</i> , <b>2004</b> , 47, 640-8	5.5	73
37	Towards effective and rewarding data sharing. <i>Neuroinformatics</i> , <b>2003</b> , 1, 289-95	3.2	63
36	Timing of neuronal and glial ultrastructure disruption during brain slice preparation and recovery in vitro. <i>Journal of Comparative Neurology</i> , <b>2003</b> , 465, 90-103	3.4	116
35	Structural changes at dendritic spine synapses during long-term potentiation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2003</b> , 358, 745-8	5.8	141
34	Endosomal compartments serve multiple hippocampal dendritic spines from a widespread rather than a local store of recycling membrane. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 2215-24	6.6	206
33	Dendritic spines do not split during hippocampal LTP or maturation. <i>Nature Neuroscience</i> , <b>2002</b> , 5, 297-8	25.5	104
32	Giant miniature EPSCs at the hippocampal mossy fiber to CA3 pyramidal cell synapse are monoquantal. <i>Journal of Neurophysiology</i> , <b>2002</b> , 87, 15-29	3.2	74
31	Polyribosomes redistribute from dendritic shafts into spines with enlarged synapses during LTP in developing rat hippocampal slices. <i>Neuron</i> , <b>2002</b> , 35, 535-45	13.9	375
30	Dendritic spine pathology: cause or consequence of neurological disorders?. <i>Brain Research Reviews</i> , <b>2002</b> , 39, 29-54		631
29	Three-dimensional comparison of ultrastructural characteristics at depressing and facilitating synapses onto cerebellar Purkinje cells. <i>Journal of Neuroscience</i> , <b>2001</b> , 21, 6666-72	6.6	236
28	Microwave Fixation of Rat Hippocampal Slices. <i>Springer Protocols</i> , <b>2001</b> , 75-88	0.3	5
27	Overview on the structure, composition, function, development, and plasticity of hippocampal dendritic spines. <i>Hippocampus</i> , <b>2000</b> , 10, 501-11	3.5	342
26	Overview on the structure, composition, function, development, and plasticity of hippocampal dendritic spines <b>2000</b> , 10, 501		8
25	Slices have more synapses than perfusion-fixed hippocampus from both young and mature rats. <i>Journal of Neuroscience</i> , <b>1999</b> , 19, 2876-86	6.6	241
24	Three-dimensional relationships between hippocampal synapses and astrocytes. <i>Journal of Neuroscience</i> , <b>1999</b> , 19, 6897-906	6.6	653
23	Structure, development, and plasticity of dendritic spines. <i>Current Opinion in Neurobiology</i> , <b>1999</b> , 9, 343-8	6	423
22	Dendrites are more spiny on mature hippocampal neurons when synapses are inactivated. <i>Nature Neuroscience</i> , <b>1999</b> , 2, 878-83	25.5	166

21	Three-dimensional organization of cell adhesion junctions at synapses and dendritic spines in area CA1 of the rat hippocampus. <i>Journal of Comparative Neurology</i> , <b>1998</b> , 393, 58-68	3.4	85
20	Critical assessment of the involvement of perforations, spinules, and spine branching in hippocampal synapse formation. <i>Journal of Comparative Neurology</i> , <b>1998</b> , 398, 225-240	3.4	96
19	Synaptogenesis via dendritic filopodia in developing hippocampal area CA1. <i>Journal of Neuroscience</i> , <b>1998</b> , 18, 8900-11	6.6	630
18	Stability in synapse number and size at 2 hr after long-term potentiation in hippocampal area CA1. <i>Journal of Neuroscience</i> , <b>1998</b> , 18, 658-71	6.6	159
17	Three-dimensional structure and composition of CA3→CA1 axons in rat hippocampal slices: implications for presynaptic connectivity and compartmentalization. <i>Journal of Neuroscience</i> , <b>1998</b> , 18, 8300-10	6.6	396
16	Critical assessment of the involvement of perforations, spinules, and spine branching in hippocampal synapse formation <b>1998</b> , 398, 225		2
15	CREB: a major mediator of neuronal neurotrophin responses. <i>Neuron</i> , <b>1997</b> , 19, 1031-47	13.9	776
14	Visualization of the distribution of autophosphorylated calcium/calmodulin-dependent protein kinase II after tetanic stimulation in the CA1 area of the hippocampus. <i>Journal of Neuroscience</i> , <b>1997</b> , 17, 5416-27	6.6	196
13	Three-dimensional organization of smooth endoplasmic reticulum in hippocampal CA1 dendrites and dendritic spines of the immature and mature rat. <i>Journal of Neuroscience</i> , <b>1997</b> , 17, 190-203	6.6	485
12	How multiple-synapse boutons could preserve input specificity during an interneuronal spread of LTP. <i>Trends in Neurosciences</i> , <b>1995</b> , 18, 365-9	13.3	45
11	Serial Electron Microscopy as an Alternative or Complement to Confocal Microscopy for the Study of Synapses and Dendritic Spines in the Central Nervous System <b>1994</b> , 421-445		10
10	Quantal analysis and synaptic anatomy--integrating two views of hippocampal plasticity. <i>Trends in Neurosciences</i> , <b>1993</b> , 16, 141-7	13.3	222
9	Modeling and analysis of empirical data in collaborative environments. <i>Communications of the ACM</i> , <b>1992</b> , 35, 74-84	2.5	4
8	Three-dimensional analysis of the structure and composition of CA3 branched dendritic spines and their synaptic relationships with mossy fiber boutons in the rat hippocampus. <i>Journal of Comparative Neurology</i> , <b>1992</b> , 325, 169-82	3.4	341
7	Reconstructing and Visualizing Models of Neuronal Dendrites <b>1991</b> , 623-638		11
6	The development of long-term potentiation in hippocampus and neocortex. <i>Neuropsychologia</i> , <b>1989</b> , 27, 31-9	3.2	46
5	Ultrastructural study of cholecystikinin-immunoreactive cells and processes in area CA1 of the rat hippocampus. <i>Journal of Comparative Neurology</i> , <b>1985</b> , 233, 147-58	3.4	63
4	Evidence for late development of inhibition in area CA1 of the rat hippocampus. <i>Brain Research</i> , <b>1983</b> , 268, 339-43	3.7	65

3	Age differences in a circadian influence on hippocampal LTP. <i>Brain Research</i> , <b>1983</b> , 261, 69-73	3-7	79
2	A Golgi impregnation technique for thin brain slices maintained in vitro. <i>Journal of Neuroscience Methods</i> , <b>1980</b> , 2, 363-71	3	18
1	Deep Learning-Based Point-Scanning Super-Resolution Imaging		13