

Graham W Knott

List of Publications by Citations

Source: <https://exaly.com/author-pdf/3811451/graham-w-knott-publications-by-citations.pdf>
Version: 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114 papers	11,423 citations	49 h-index	106 g-index
125 ext. papers	13,414 ext. citations	11 avg, IF	6.12 L-index

#	Paper	IF	Citations
114	Long-term in vivo imaging of experience-dependent synaptic plasticity in adult cortex. <i>Nature</i> , 2002 , 420, 788-94	50.4	1480
113	Transient and persistent dendritic spines in the neocortex in vivo. <i>Neuron</i> , 2005 , 45, 279-91	13.9	845
112	Long-term, high-resolution imaging in the mouse neocortex through a chronic cranial window. <i>Nature Protocols</i> , 2009 , 4, 1128-44	18.8	680
111	Mitonuclear protein imbalance as a conserved longevity mechanism. <i>Nature</i> , 2013 , 497, 451-7	50.4	656
110	Serial section scanning electron microscopy of adult brain tissue using focused ion beam milling. <i>Journal of Neuroscience</i> , 2008 , 28, 2959-64	6.6	504
109	Experience-dependent and cell-type-specific spine growth in the neocortex. <i>Nature</i> , 2006 , 441, 979-83	50.4	494
108	Experience and activity-dependent maturation of perisomatic GABAergic innervation in primary visual cortex during a postnatal critical period. <i>Journal of Neuroscience</i> , 2004 , 24, 9598-611	6.6	465
107	Spine growth precedes synapse formation in the adult neocortex in vivo. <i>Nature Neuroscience</i> , 2006 , 9, 1117-24	25.5	453
106	Formation of dendritic spines with GABAergic synapses induced by whisker stimulation in adult mice. <i>Neuron</i> , 2002 , 34, 265-73	13.9	357
105	Cell type-specific structural plasticity of axonal branches and boutons in the adult neocortex. <i>Neuron</i> , 2006 , 49, 861-75	13.9	321
104	GAD67-mediated GABA synthesis and signaling regulate inhibitory synaptic innervation in the visual cortex. <i>Neuron</i> , 2007 , 54, 889-903	13.9	237
103	Connexin 30 sets synaptic strength by controlling astroglial synapse invasion. <i>Nature Neuroscience</i> , 2014 , 17, 549-58	25.5	217
102	Plasticity of astrocytic coverage and glutamate transporter expression in adult mouse cortex. <i>PLoS Biology</i> , 2006 , 4, e343	9.7	205
101	Rapid functional maturation of nascent dendritic spines. <i>Neuron</i> , 2009 , 61, 247-58	13.9	203
100	Ultrastructural analysis of adult mouse neocortex comparing aldehyde perfusion with cryo fixation. <i>ELife</i> , 2015 , 4,	8.9	200
99	The process of Lewy body formation, rather than simply β -synuclein fibrillization, is one of the major drivers of neurodegeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 4971-4982	11.5	193
98	Induction of spine growth and synapse formation by regulation of the spine actin cytoskeleton. <i>Neuron</i> , 2004 , 44, 321-34	13.9	170

97	Synaptic proximity enables NMDAR signalling to promote brain metastasis. <i>Nature</i> , 2019 , 573, 526-531	50.4	158
96	Supervoxel-based segmentation of mitochondria in em image stacks with learned shape features. <i>IEEE Transactions on Medical Imaging</i> , 2012 , 31, 474-86	11.7	149
95	The relationship between PSD-95 clustering and spine stability in vivo. <i>Journal of Neuroscience</i> , 2014 , 34, 2075-86	6.6	138
94	PSD-95 promotes synaptogenesis and multiinnervated spine formation through nitric oxide signaling. <i>Journal of Cell Biology</i> , 2008 , 183, 1115-27	7.3	134
93	Subcellular domain-restricted GABAergic innervation in primary visual cortex in the absence of sensory and thalamic inputs. <i>Nature Neuroscience</i> , 2004 , 7, 1184-6	25.5	131
92	Barriers in the immature brain. <i>Cellular and Molecular Neurobiology</i> , 2000 , 20, 29-40	4.6	121
91	Altered synaptic dynamics during normal brain aging. <i>Journal of Neuroscience</i> , 2013 , 33, 4094-104	6.6	119
90	Nigrostriatal overabundance of Eynuclein leads to decreased vesicle density and deficits in dopamine release that correlate with reduced motor activity. <i>Acta Neuropathologica</i> , 2012 , 123, 653-69	14.3	111
89	Automated detection and segmentation of synaptic contacts in nearly isotropic serial electron microscopy images. <i>PLoS ONE</i> , 2011 , 6, e24899	3.7	106
88	Ultrastructurally smooth thick partitioning and volume stitching for large-scale connectomics. <i>Nature Methods</i> , 2015 , 12, 319-22	21.6	94
87	Increased axonal bouton dynamics in the aging mouse cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, E1514-23	11.5	88
86	Altered synapse formation in the adult somatosensory cortex of brain-derived neurotrophic factor heterozygote mice. <i>Journal of Neuroscience</i> , 2004 , 24, 2394-400	6.6	88
85	Multicut brings automated neurite segmentation closer to human performance. <i>Nature Methods</i> , 2017 , 14, 101-102	21.6	84
84	GABA signaling promotes synapse elimination and axon pruning in developing cortical inhibitory interneurons. <i>Journal of Neuroscience</i> , 2012 , 32, 331-43	6.6	84
83	In vivo single branch axotomy induces GAP-43-dependent sprouting and synaptic remodeling in cerebellar cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 10824-9	11.5	81
82	Locally coordinated synaptic plasticity of visual cortex neurons in vivo. <i>Science</i> , 2018 , 360, 1349-1354	33.3	80
81	BMP signaling specifies the development of a large and fast CNS synapse. <i>Nature Neuroscience</i> , 2013 , 16, 856-64	25.5	74
80	Ciliary neurotrophic factor activates astrocytes, redistributes their glutamate transporters GLAST and GLT-1 to raft microdomains, and improves glutamate handling in vivo. <i>Journal of Neuroscience</i> , 2006 , 26, 5978-89	6.6	74

79	Correlative in vivo 2 photon and focused ion beam scanning electron microscopy of cortical neurons. <i>PLoS ONE</i> , 2013 , 8, e57405	3.7	65
78	The RNA-Binding Protein PUM2 Impairs Mitochondrial Dynamics and Mitophagy During Aging. <i>Molecular Cell</i> , 2019 , 73, 775-787.e10	17.6	60
77	FOXO3 determines the accumulation of β -synuclein and controls the fate of dopaminergic neurons in the substantia nigra. <i>Human Molecular Genetics</i> , 2014 , 23, 1435-52	5.6	60
76	A protocol for preparing GFP-labeled neurons previously imaged in vivo and in slice preparations for light and electron microscopic analysis. <i>Nature Protocols</i> , 2009 , 4, 1145-56	18.8	60
75	Is EM dead?. <i>Journal of Cell Science</i> , 2013 , 126, 4545-52	5.3	59
74	The nature of the decrease in blood-cerebrospinal fluid barrier exchange during postnatal brain development in the rat. <i>Journal of Physiology</i> , 1993 , 468, 73-83	3.9	59
73	In vivo modeling of human neuron dynamics and Down syndrome. <i>Science</i> , 2018 , 362,	33.3	59
72	Focussed ion beam milling and scanning electron microscopy of brain tissue. <i>Journal of Visualized Experiments</i> , 2011 , e2588	1.6	58
71	Impairment of Glycolysis-Derived l-Serine Production in Astrocytes Contributes to Cognitive Deficits in Alzheimer's Disease. <i>Cell Metabolism</i> , 2020 , 31, 503-517.e8	24.6	55
70	PGC-1 β activity in nigral dopamine neurons determines vulnerability to β -synuclein. <i>Acta Neuropathologica Communications</i> , 2015 , 3, 16	7.3	53
69	Dendritic spine plasticity--current understanding from in vivo studies. <i>Brain Research Reviews</i> , 2008 , 58, 282-9		51
68	Analysis of centriole elimination during <i>C. elegans</i> oogenesis. <i>Development (Cambridge)</i> , 2012 , 139, 1670-6	6.6	50
67	Conditional expression of Parkinson's disease-related R1441C LRRK2 in midbrain dopaminergic neurons of mice causes nuclear abnormalities without neurodegeneration. <i>Neurobiology of Disease</i> , 2014 , 71, 345-58	7.5	49
66	Glial glutamate transporters and maturation of the mouse somatosensory cortex. <i>Cerebral Cortex</i> , 2003 , 13, 1110-21	5.1	49
65	Pansynaptic enlargement at adult cortical connections strengthened by experience. <i>Cerebral Cortex</i> , 2014 , 24, 521-31	5.1	44
64	Repair and recovery following spinal cord injury in a neonatal marsupial (<i>Monodelphis domestica</i>). <i>Clinical and Experimental Pharmacology and Physiology</i> , 1995 , 22, 518-26	3	42
63	Parkin functionally interacts with PGC-1 α to preserve mitochondria and protect dopaminergic neurons. <i>Human Molecular Genetics</i> , 2017 , 26, 582-598	5.6	41
62	NeuroMorph: a toolset for the morphometric analysis and visualization of 3D models derived from electron microscopy image stacks. <i>Neuroinformatics</i> , 2015 , 13, 83-92	3.2	39

61	Development of thalamocortical projections in the South American gray short-tailed opossum (<i>Monodelphis domestica</i>) 1998 , 398, 491-514		39
60	Globally Optimal Closed-Surface Segmentation for Connectomics. <i>Lecture Notes in Computer Science</i> , 2012 , 778-791	0.9	38
59	Imaging of experience-dependent structural plasticity in the mouse neocortex in vivo. <i>Behavioural Brain Research</i> , 2008 , 192, 20-5	3.4	37
58	The nature and composition of the internal environment of the developing brain. <i>Cellular and Molecular Neurobiology</i> , 2000 , 20, 41-56	4.6	37
57	Learning context cues for synapse segmentation. <i>IEEE Transactions on Medical Imaging</i> , 2013 , 32, 1864-77	1.7	36
56	Semiautomated correlative 3D electron microscopy of in vivo-imaged axons and dendrites. <i>Nature Protocols</i> , 2014 , 9, 1354-66	18.8	35
55	Synapse formation in adult barrel cortex following naturalistic environmental enrichment. <i>Neuroscience</i> , 2011 , 199, 143-52	3.9	35
54	NanoSIMS analysis of an isotopically labelled organometallic ruthenium(II) drug to probe its distribution and state in vitro. <i>Chemical Communications</i> , 2015 , 51, 16486-9	5.8	34
53	A single epidermal stem cell strategy for safe ex vivo gene therapy. <i>EMBO Molecular Medicine</i> , 2015 , 7, 380-93	12	33
52	Differences in cisplatin distribution in sensitive and resistant ovarian cancer cells: a TEM/NanoSIMS study. <i>Metallomics</i> , 2017 , 9, 1413-1420	4.5	29
51	Dysfunction of homeostatic control of dopamine by astrocytes in the developing prefrontal cortex leads to cognitive impairments. <i>Molecular Psychiatry</i> , 2020 , 25, 732-749	15.1	29
50	Motifs in the tau protein that control binding to microtubules and aggregation determine pathological effects. <i>Scientific Reports</i> , 2017 , 7, 13556	4.9	28
49	Modulating the catalytic activity of AMPK has neuroprotective effects against β -synuclein toxicity. <i>Molecular Neurodegeneration</i> , 2017 , 12, 80	19	26
48	The effects of aging on neuropil structure in mouse somatosensory cortex-A 3D electron microscopy analysis of layer 1. <i>PLoS ONE</i> , 2018 , 13, e0198131	3.7	26
47	Molecular insights into <i>Vibrio cholerae</i> intra-amoebal host-pathogen interactions. <i>Nature Communications</i> , 2018 , 9, 3460	17.4	24
46	Learning structured models for segmentation of 2-D and 3-D imagery. <i>IEEE Transactions on Medical Imaging</i> , 2015 , 34, 1096-110	11.7	23
45	Morphological and molecular heterogeneity in release sites of single neurons. <i>European Journal of Neuroscience</i> , 2003 , 17, 1365-74	3.5	21
44	Gas cluster ion beam SEM for imaging of large tissue samples with 10 nm isotropic resolution. <i>Nature Methods</i> , 2020 , 17, 68-71	21.6	20

43	Learning context cues for synapse segmentation in EM volumes. <i>Lecture Notes in Computer Science</i> , 2012 , 15, 585-92	0.9	19
42	Correlative in vivo 2-photon imaging and focused ion beam scanning electron microscopy: 3D analysis of neuronal ultrastructure. <i>Methods in Cell Biology</i> , 2014 , 124, 339-61	1.8	18
41	The Differential Distribution of RAPTA-T in Non-Invasive and Invasive Breast Cancer Cells Correlates with Its Anti-Invasive and Anti-Metastatic Effects. <i>International Journal of Molecular Sciences</i> , 2017 , 18,	6.3	18
40	Diversity of Cortico-descending Projections: Histological and Diffusion MRI Characterization in the Monkey. <i>Cerebral Cortex</i> , 2019 , 29, 788-801	5.1	18
39	Identification of aminopyrimidine-sulfonamides as potent modulators of Wag31-mediated cell elongation in mycobacteria. <i>Molecular Microbiology</i> , 2017 , 103, 13-25	4.1	17
38	Imaging liver and brain glycogen metabolism at the nanometer scale. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015 , 11, 239-45	6	16
37	NeuroMorph: A Software Toolset for 3D Analysis of Neurite Morphology and Connectivity. <i>Frontiers in Neuroanatomy</i> , 2018 , 12, 59	3.6	14
36	Voxel2Mesh: 3D Mesh Model Generation from Volumetric Data. <i>Lecture Notes in Computer Science</i> , 2020 , 299-308	0.9	13
35	Delayed and Temporally Imprecise Neurotransmission in Reorganizing Cortical Microcircuits. <i>Journal of Neuroscience</i> , 2015 , 35, 9024-37	6.6	11
34	Computer assisted detection of axonal bouton structural plasticity in time-lapse images. <i>ELife</i> , 2017 , 6,	8.9	11
33	Increasing depth resolution of electron microscopy of neural circuits using sparse tomographic reconstruction 2010 ,		11
32	Development of motoneurons and primary sensory afferents in the thoracic and lumbar spinal cord of the South American opossum <i>Monodelphis domestica</i> . <i>Journal of Comparative Neurology</i> , 1999 , 414, 423-36	3.4	11
31	Mitofusin-2 in the Nucleus Accumbens Regulates Anxiety and Depression-like Behaviors Through Mitochondrial and Neuronal Actions. <i>Biological Psychiatry</i> , 2021 , 89, 1033-1044	7.9	11
30	Block Face Scanning Electron Microscopy of Fluorescently Labeled Axons Without Using Near Infra-Red Branding. <i>Frontiers in Neuroanatomy</i> , 2018 , 12, 88	3.6	11
29	Seeded watershed cut uncertainty estimators for guided interactive segmentation 2012 ,		10
28	Amygdala GluN2B-NMDAR dysfunction is critical in abnormal aggression of neurodevelopmental origin induced by <i>St8sia2</i> deficiency. <i>Molecular Psychiatry</i> , 2020 , 25, 2144-2161	15.1	10
27	SAS-1 is a C2 domain protein critical for centriole integrity in <i>C. elegans</i> . <i>PLoS Genetics</i> , 2014 , 10, e1004767		9
26	Combined deletion of Glut1 and Glut3 impairs lung adenocarcinoma growth. <i>ELife</i> , 2020 , 9,	8.9	9

25	Somatostatin enhances visual processing and perception by suppressing excitatory inputs to parvalbumin-positive interneurons in V1. <i>Science Advances</i> , 2020 , 6, eaaz0517	14.3	8
24	Cell Division by Longitudinal Scission in the Insect Endosymbiont <i>Spiroplasma poulsonii</i> . <i>MBio</i> , 2016 , 7,	7.8	8
23	Ultrastructural comparison of dendritic spine morphology preserved with cryo and chemical fixation. <i>ELife</i> , 2020 , 9,	8.9	8
22	Dynamic persistence of UPEC intracellular bacterial communities in a human bladder-chip model of urinary tract infection. <i>ELife</i> , 2021 , 10,	8.9	8
21	Imaging the time-integrated cerebral metabolic activity with subcellular resolution through nanometer-scale detection of biosynthetic products deriving from (13)C-glucose. <i>Journal of Chemical Neuroanatomy</i> , 2015 , 69, 7-12	3.2	7
20	Primary sensory afferent innervation of the developing superficial dorsal horn in the South American opossum <i>Monodelphis domestica</i> . <i>Journal of Comparative Neurology</i> , 2006 , 495, 37-52	3.4	6
19	Ultrastructural basis of strong unitary inhibition in a binocular neuron. <i>Journal of Physiology</i> , 2018 , 596, 4969-4982	3.9	5
18	Modeling brain circuitry over a wide range of scales. <i>Frontiers in Neuroanatomy</i> , 2015 , 9, 42	3.6	5
17	Neurodegeneration: Cold shock protects the brain. <i>Nature</i> , 2015 , 518, 177-8	50.4	5
16	Nuclear and cytoplasmic huntingtin inclusions exhibit distinct biochemical composition, interactome and ultrastructural properties. <i>Nature Communications</i> , 2021 , 12, 6579	17.4	4
15	Author response: Ultrastructural analysis of adult mouse neocortex comparing aldehyde perfusion with cryo fixation 2015 ,		4
14	Nano-imaging trace elements at organelle levels in substantia nigra overexpressing β synuclein to model Parkinson's disease. <i>Communications Biology</i> , 2020 , 3, 364	6.7	3
13	Deep Active Surface Models 2021 ,		2
12	Flash scanning electron microscopy. <i>Lecture Notes in Computer Science</i> , 2013 , 16, 413-20	0.9	2
11	Maturation of Complex Synaptic Connections of Layer 5 Cortical Axons in the Posterior Thalamic Nucleus Requires SNAP25. <i>Cerebral Cortex</i> , 2021 , 31, 2625-2638	5.1	2
10	The architecture of the endoplasmic reticulum is regulated by the reversible lipid modification of the shaping protein CLIMP-63		2
9	Cellular Uptake and Intracellular Trafficking of Poly(N-(2-Hydroxypropyl) Methacrylamide). <i>Biomacromolecules</i> , 2019 , 20, 231-242	6.9	2
8	Dynamic persistence of intracellular bacterial communities of uropathogenic <i>Escherichia coli</i> in a human bladder-chip model of urinary tract infections		2

7	3D Ultrastructure of Synaptic Inputs to Distinct GABAergic Neurons in the Mouse Primary Visual Cortex. <i>Cerebral Cortex</i> , 2021 , 31, 2610-2624	5.1	1
6	Efficient scanning for EM based target localization. <i>Lecture Notes in Computer Science</i> , 2012 , 15, 337-44	0.9	1
5	Early invasion of the bladder wall by solitary bacteria protects UPEC from antibiotics and neutrophil swarms in an organoid model. <i>Cell Reports</i> , 2021 , 36, 109351	10.6	1
4	Multi-Modal Optical Imaging of the Cerebellum in Animals. <i>Cerebellum</i> , 2016 , 15, 18-20	4.3	0
3	Imaging green fluorescent protein-labeled neurons using light and electron microscopy. <i>Cold Spring Harbor Protocols</i> , 2013 , 2013, 542-50	1.2	
2	Response: use-dependent inhibition of dendritic spines. <i>Trends in Neurosciences</i> , 2002 , 25, 543-544	13.3	
1	A subpopulation of cortical VIP-expressing interneurons with highly dynamic spines.. <i>Communications Biology</i> , 2022 , 5, 352	6.7	