Volker Haucke

List of Publications by Year
in descending order

Version: 2024-02-01

130 papers	11,011 citations	30070 54 h-index	33894 99 g-index
137 all docs	137 docs citations	137 times ranked	12826 citing authors

#	Article	IF	Citations
1	Clathrin-independent endocytic retrieval of SV proteins mediated by the clathrin adaptor AP-2 at mammalian central synapses. ELife, 2022, 11, .	6.0	12
2	Phosphoinositide Conversion Inactivates Râ€RAS and Drives Metastases in Breast Cancer. Advanced Science, 2022, 9, e2103249.	11.2	8
3	Sulfonated red and far-red rhodamines to visualize SNAP- and Halo-tagged cell surface proteins. Organic and Biomolecular Chemistry, 2022, 20, 5967-5980.	2.8	12
4	Defective lipid signalling caused by mutations inPIK3C2Bunderlies focal epilepsy. Brain, 2022, 145, 2313-2331.	7.6	10
5	Inositol triphosphateâ€“triggered calcium release from the endoplasmic reticulum induces lysosome biogenesis via TFEB/TFE3. Journal of Biological Chemistry, 2022, 298, 101740.	3.4	7
6	Structural basis of phosphatidylinositol 3-kinase C2Î± function. Nature Structural and Molecular Biology, 2022, 29, 218-228.	8.2	14
7	Endosomal phosphatidylinositol 3â€phosphate controls synaptic vesicle cycling and neurotransmission. EMBO Journal, 2022, 41, e109352.	7.8	5
8	Phosphoinositides as membrane organizers. Nature Reviews Molecular Cell Biology, 2022, 23, 797-816.	37.0	114
9	Selective endocytosis of Ca ²⁺ -permeable AMPARs by the Alzheimerâ€™s disease risk factor CALM bidirectionally controls synaptic plasticity. Science Advances, 2022, 8, .	10.3	12
10	Inositol Triphosphate Signaling Triggers Lysosome Biogenesis Via Calcium Release from Endoplasmic Reticulum Stores. Contact (Thousand Oaks (Ventura County, Calif)), 2022, 5, 251525642210970.	1.3	1
11	Local synthesis of the phosphatidylinositol-3,4-bisphosphate lipid drives focal adhesion turnover. Developmental Cell, 2022, 57, 1694-1711.e7.	7.0	11
12	Neuronal Autophagy Regulates Presynaptic Neurotransmission by Controlling the Axonal Endoplasmic Reticulum. Neuron, 2021, 109, 299-313.e9.	8.1	91
13	A Presynaptic Perspective on Transport and Assembly Mechanisms for Synapse Formation. Neuron, 2021, 109, 27-41.	8.1	43
14	The molecular mechanisms mediating class II PI 3â€kinase function in cell physiology. FEBS Journal, 2021, 288, 7025-7042.	4.7	12
15	The axonal endolysosomal and autophagic systems. Journal of Neurochemistry, 2021, 158, 589-602.	3.9	24
16	Neuronal autophagy controls the axonal endoplasmic reticulum to regulate neurotransmission in healthy neurons. Autophagy, 2021, 17, 1049-1051.	9.1	5
17	Dysregulation of myelin synthesis and actomyosin function underlies aberrant myelin in CMT4B1 neuropathy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
18	Liquid-like protein assemblies initiate endocytosis. Nature Cell Biology, 2021, 23, 301-302.	10.3	7

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19	Inositol triphosphate-triggered calcium release blocks lipid exchange at endoplasmic reticulum-Golgi contact sites. Nature Communications, 2021, 12, 2673.	12.8	27
20	A mechanochemical mechanism couples exocrine secretion to endocytic membrane retrieval. Developmental Cell, 2021, 56, 1557-1559.	7.0	0
21	Mechanism of synaptic protein turnover and its regulation by neuronal activity. Current Opinion in Neurobiology, 2021, 69, 76-83.	4.2	18
22	SynActJ: Easy-to-Use Automated Analysis of Synaptic Activity. Frontiers in Computer Science, 2021, 3, .	2.8	6
23	PI(3,4)P2-mediated cytokinetic abscission prevents early senescence and cataract formation. Science, 2021, 374, eabk0410.	12.6	37
24	Asymmetric distribution of TLR3 leads to a polarized immune response in human intestinal epithelial cells. Nature Microbiology, 2020, 5, 181-191.	13.3	45
25	Phosphatidylinositol 3,4-bisphosphate synthesis and turnover are spatially segregated in the endocytic pathway. Journal of Biological Chemistry, 2020, 295, 1091-1104.	3.4	12
26	Ramping up the autophagy-lysosome system to cope with osmotic stress. Autophagy, 2020, 16, 1921-1922.	9.1	1
27	A Golgi-associated lipid kinase controls peripheral nerve myelination. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30873-30875.	7.1	2
28	Rab35-regulated lipid turnover by myotubularins represses mTORC1 activity and controls myelin growth. Nature Communications, 2020, 11, 2835.	12.8	19
29	The INPP4B Tumor Suppressor Modulates EGFR Trafficking and Promotes Triple-Negative Breast Cancer. Cancer Discovery, 2020, 10, 1226-1239.	9.4	32
30	Endophilin-A coordinates priming and fusion of neurosecretory vesicles via intersectin. Nature Communications, 2020, 11, 1266.	12.8	26
31	Endocytic regulation of cellular ion homeostasis controls lysosome biogenesis. Nature Cell Biology, 2020, 22, 815-827.	10.3	33
32	Vesicle Clustering in a Living Synapse Depends on a Synapsin Region that Mediates Phase Separation. Cell Reports, 2020, 30, 2594-2602.e3.	6.4	64
33	Vps34 derived phosphatidylinositol 3â€monophosphate modulates megakaryocyte maturation and proplatelet production through late endosomes/lysosomes. Journal of Thrombosis and Haemostasis, 2020, 18, 1756-1772.	3.8	15
34	Intersectin-Mediated Clearance of SNARE Complexes Is Required for Fast Neurotransmission. Cell Reports, 2020, 30, 409-420.e6.	6.4	22
35	EHD2-mediated restriction of caveolar dynamics regulates cellular fatty acid uptake. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7471-7481.	7.1	41
36	Phosphatidylinositol 3,4-bisphosphate synthesis and turnover are spatially segregated in the endocytic pathway. Journal of Biological Chemistry, 2020, 295, 1091-1104.	3.4	15

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37	Endocytosis in the adaptation to cellular stress. Cell Stress, 2020, 4, 230-247.	3.2	36
38	Neuronal functions of clathrin-associated endocytic sorting adaptorsÂâ€“ from molecules to disease. Neuroforum, 2020, 26, 209-217.	0.3	1
39	Protein kinase N controls a lysosomal lipid switch to facilitate nutrient signalling via mTORC1. Nature Cell Biology, 2019, 21, 1093-1101.	10.3	35
40	Phosphoinositides in the control of lysosome function and homeostasis. Biochemical Society Transactions, 2019, 47, 1173-1185.	3.4	33
41	Molecularly Distinct Clathrin-Coated Pits Differentially Impact EGFR Fate and Signaling. Cell Reports, 2019, 27, 3049-3061.e6.	6.4	58
42	The cell adhesion protein CAR is a negative regulator of synaptic transmission. Scientific Reports, 2019, 9, 6768.	3.3	17
43	A Recurrent Missense Variant in AP2M1 Impairs Clathrin-Mediated Endocytosis and Causes Developmental and Epileptic Encephalopathy. American Journal of Human Genetics, 2019, 104, 1060-1072.	6.2	78
44	Disruption of endocytosis through chemical inhibition of clathrin heavy chain function. Nature Chemical Biology, 2019, 15, 641-649.	8.0	86
45	Phosphoinositide switches in endocytosis and in the endolysosomal system. Current Opinion in Cell Biology, 2019, 59, 50-57.	5.4	38
46	Exon Inclusion Modulates Conformational Plasticity and Autoinhibition of the Intersectin 1 SH3A Domain. Structure, 2019, 27, 977-987.e5.	3.3	4
47	Mutations in PIK3C2A cause syndromic short stature, skeletal abnormalities, and cataracts associated with ciliary dysfunction. PLoS Genetics, 2019, 15, e1008088.	3.5	45
48	Nanoscale coupling of endocytic pit growth and stability. Science Advances, 2019, 5, eaax5775.	10.3	17
49	Spermidine protects from age-related synaptic alterations at hippocampal mossy fiber-CA3 synapses. Scientific Reports, 2019, 9, 19616.	3.3	33
50	Quantitative fluorescence imaging determines the absolute number of locked nucleic acid oligonucleotides needed for suppression of target gene expression. Nucleic Acids Research, 2019, 47, 953-969.	14.5	35
51	Phosphoinositide conversion in endocytosis and the endolysosomal system. Journal of Biological Chemistry, 2018, 293, 1526-1535.	3.4	152
52	Presynaptic endocytic factors in autophagy and neurodegeneration. Current Opinion in Neurobiology, 2018, 48, 153-159.	4.2	48
53	Coupling of exocytosis and endocytosis at the presynaptic active zone. Neuroscience Research, 2018, 127, 45-52.	1.9	43
54	Mutations in Disordered Regions Can Cause Disease by Creating Dileucine Motifs. Cell, 2018, 175, 239-253.e17.	28.9	97

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55	Membrane remodeling in clathrin-mediated endocytosis. Journal of Cell Science, 2018, 131, .	2.0	96
56	Presynaptic Biogenesis Requires Axonal Transport of Lysosome-Related Vesicles. Neuron, 2018, 99, 1216-1232.e7.	8.1	109
57	Autoregulation of Class II Alpha PI3K Activity by Its Lipid-Binding PX-C2 Domain Module. Molecular Cell, 2018, 71, 343-351.e4.	9.7	41
58	Mechanical signals regulate TORC2 activity. Nature Cell Biology, 2018, 20, 994-995.	10.3	3
59	Synaptic Vesicle Endocytosis Occurs on Multiple Timescales and Is Mediated by Formin-Dependent Actin Assembly. Neuron, 2017, 93, 854-866.e4.	8.1	144
60	Intersectin 1 is a component of the Reelin pathway to regulate neuronal migration and synaptic plasticity in the hippocampus. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5533-5538.	7.1	40
61	Lipid-mediated PX-BAR domain recruitment couples local membrane constriction to endocytic vesicle fission. Nature Communications, 2017, 8, 15873.	12.8	101
62	mTORC1 activity repression by late endosomal phosphatidylinositol 3,4-bisphosphate. Science, 2017, 356, 968-972.	12.6	126
63	Retrograde transport of TrkB-containing autophagosomes via the adaptor AP-2 mediates neuronal complexity and prevents neurodegeneration. Nature Communications, 2017, 8, 14819.	12.8	130
64	A lipid off-switch for mTORC1. Molecular and Cellular Oncology, 2017, 4, e1356899.	0.7	2
65	A Coincidence Detection Mechanism Controls PX-BAR Domain-Mediated Endocytic Membrane Remodeling via an Allosteric Structural Switch. Developmental Cell, 2017, 43, 522-529.e4.	7.0	32
66	Intersectin associates with synapsin and regulates its nanoscale localization and function. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12057-12062.	7.1	47
67	Phosphatidylinositol 4,5-bisphosphate optical uncaging potentiates exocytosis. ELife, 2017, 6, .	6.0	39
68	Lysosomal Dysfunction Caused by Cellular Accumulation of Silica Nanoparticles. Journal of Biological Chemistry, 2016, 291, 14170-14184.	3.4	89
69	RIM-binding protein 2 regulates release probability by fine-tuning calcium channel localization at murine hippocampal synapses. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11615-11620.	7.1	86
70	Autophagosome Formation by Endophilin Keeps Synapses in Shape. Neuron, 2016, 92, 675-677.	8.1	2
71	Phosphatidylinositol 3â€phosphatesâ€”at the interface between cell signalling and membrane traffic. EMBO Journal, 2016, 35, 561-579.	7.8	221
72	A phosphoinositide conversion mechanism for exit from endosomes. Nature, 2016, 529, 408-412.	27.8	162

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73	Modes and mechanisms of synaptic vesicle recycling. Current Opinion in Neurobiology, 2016, 39, 17-23.	4.2	74
74	Disruption of adaptor protein 2Î¼ (<scp>AP</scp> â€2Î¼) in cochlear hair cells impairs vesicle reloading of synaptic release sites and hearing. EMBO Journal, 2015, 34, 2686-2702.	7.8	84
75	Vesicle uncoating regulated by <scp>SH</scp> 3â€•<scp>SH</scp> 3 domainâ€mediated complex formation between endophilin and intersectin at synapses. EMBO Reports, 2015, 16, 232-239.	4.5	40
76	Multicolor Caged dSTORM Resolves the Ultrastructure of Synaptic Vesicles in the Brain. Angewandte Chemie - International Edition, 2015, 54, 13230-13235.	13.8	31
77	Molecular Mechanisms of Presynaptic Membrane Retrieval and Synaptic Vesicle Reformation. Neuron, 2015, 85, 484-496.	8.1	180
78	Phosphoinositides in endocytosis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 794-804.	2.4	137
79	Overlapping functions of stonin 2 and SV2 in sorting of the calcium sensor synaptotagmin 1 to synaptic vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7297-7302.	7.1	54
80	Diffusional spread and confinement of newly exocytosed synaptic vesicle proteins. Nature Communications, 2015, 6, 8392.	12.8	47
81	Vesicular Synaptobrevin/VAMP2 Levels Guarded by AP180 Control Efficient Neurotransmission. Neuron, 2015, 88, 330-344.	8.1	76
82	Hopping Pits Catch Fusing Granules. Developmental Cell, 2015, 35, 10-11.	7.0	0
83	Crystal structure of the dynamin tetramer. Nature, 2015, 525, 404-408.	27.8	115
84	On the endocytosis rollercoaster. Nature, 2015, 517, 446-447.	27.8	15
85	PI3K Class II Î± Controls Spatially Restricted Endosomal PtdIns3P and Rab11 Activation to Promote Primary Cilium Function. Developmental Cell, 2014, 28, 647-658.	7.0	177
86	Neurotransmission: Spontaneous and Evoked Release Filing for Divorce. Current Biology, 2014, 24, R192-R194.	3.9	17
87	Composition of isolated synaptic boutons reveals the amounts of vesicle trafficking proteins. Science, 2014, 344, 1023-1028.	12.6	637
88	A Novel Twist in Membrane dePHormation. Developmental Cell, 2014, 31, 3-4.	7.0	2
89	BAR Domain Scaffolds in Dynamin-Mediated Membrane Fission. Cell, 2014, 156, 882-892.	28.9	199
90	Clathrin/AP-2 Mediate Synaptic Vesicle Reformation from Endosome-like Vacuoles but Are Not Essential for Membrane Retrieval at Central Synapses. Neuron, 2014, 82, 981-988.	8.1	181

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91	A Presynaptic Role for the Cytomatrix Protein GIT in Synaptic Vesicle Recycling. Cell Reports, 2014, 7, 1417-1425.	6.4	35
92	Greasing the synaptic vesicle cycle by membrane lipids. Trends in Cell Biology, 2013, 23, 493-503.	7.9	95
93	PI4K2Î²/AP-1-Based TGN-Endosomal Sorting Regulates Wnt Signaling. Current Biology, 2013, 23, 2185-2190.	3.9	56
94	Blocking Endocytosis Enhances Short-Term Synaptic Depression under Conditions of Normal Availability of Vesicles. Neuron, 2013, 80, 343-349.	8.1	97
95	Spatiotemporal control of endocytosis by phosphatidylinositol-3,4-bisphosphate. Nature, 2013, 499, 233-237.	27.8	362
96	Compromised fidelity of endocytic synaptic vesicle protein sorting in the absence of stonin 2. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E526-35.	7.1	78
97	Fast neurotransmitter release regulated by the endocytic scaffold intersectin. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8266-8271.	7.1	51
98	The tortoise and the hare revisited. ELife, 2013, 2, e01233.	6.0	1
99	Surface Functionalization of Silica Nanoparticles Supports Colloidal Stability in Physiological Media and Facilitates Internalization in Cells. Langmuir, 2012, 28, 7598-7613.	3.5	190
100	Turning CALM into excitement: AP180 and CALM in endocytosis and disease. Biology of the Cell, 2012, 104, 588-602.	2.0	36
101	Structural Insights into Dynamin-Mediated Membrane Fission. Structure, 2012, 20, 1621-1628.	3.3	60
102	At the Crossroads of Chemistry and Cell Biology: Inhibiting Membrane Traffic by Small Molecules. Traffic, 2012, 13, 495-504.	2.7	56
103	Multiâ€colour direct STORM with red emitting carbocyanines. Biology of the Cell, 2012, 104, 229-237.	2.0	111
104	Crystal structure of nucleotide-free dynamin. Nature, 2011, 477, 556-560.	27.8	277
105	Role of the Clathrin Terminal Domain in Regulating Coated Pit Dynamics Revealed by Small Molecule Inhibition. Cell, 2011, 146, 471-484.	28.9	459
106	Protein scaffolds in the coupling of synaptic exocytosis and endocytosis. Nature Reviews Neuroscience, 2011, 12, 127-138.	10.2	497
107	Membrane shaping by the Bin/amphiphysin/Rvs (BAR) domain protein superfamily. Cellular and Molecular Life Sciences, 2011, 68, 3983-3993.	5.4	91
108	SNARE motif-mediated sorting of synaptobrevin by the endocytic adaptors clathrin assembly lymphoid myeloid leukemia (CALM) and AP180 at synapses. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13540-13545.	7.1	123

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109	Intersectin 1: a versatile actor in the synaptic vesicle cycle. Biochemical Society Transactions, 2010, 38, 181-186.	3.4	60
110	Stoninsâ€"Specialized Adaptors for Synaptic Vesicle Recycling and Beyond?. Traffic, 2010, 11, 8-15.	2.7	39
111	Molecular basis for SH3 domain regulation of F-BARâ€"mediated membrane deformation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8213-8218.	7.1	138
112	A Novel Subtype of AP-1-binding Motif within the Palmitoylated trans-Golgi Network/Endosomal Accessory Protein Gadkin/Î³-BAR. Journal of Biological Chemistry, 2010, 285, 4074-4086.	3.4	10
113	Regulation of synaptic vesicle recycling by complex formation between intersectin 1 and the clathrin adaptor complex AP2. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4206-4211.	7.1	73
114	Molecular Basis for Association of PIPKIÎ³-p90 with Clathrin Adaptor AP-2. Journal of Biological Chemistry, 2010, 285, 2734-2749.	3.4	27
115	SnapShot: Endocytic Trafficking. Cell, 2009, 137, 382.e1-382.e3.	28.9	44
116	Arf1-GTP-induced Tubule Formation Suggests a Function of Arf Family Proteins in Curvature Acquisition at Sites of Vesicle Budding. Journal of Biological Chemistry, 2008, 283, 27717-27723.	3.4	100
117	Molecular basis of synaptic vesicle cargo recognition by the endocytic sorting adaptor stonin 2. Journal of Cell Biology, 2007, 179, 1497-1510.	5.2	64
118	Phosphoinositideâ€metabolizing enzymes at the interface between membrane traffic and cell signalling. EMBO Reports, 2007, 8, 241-246.	4.5	131
119	Lipids and lipid modifications in the regulation of membrane traffic. Current Opinion in Cell Biology, 2007, 19, 426-435.	5.4	96
120	Cargo Takes Control of Endocytosis. Cell, 2006, 127, 35-37.	28.9	19
121	Stonin 2 Is an AP-2-Dependent Endocytic Sorting Adaptor for Synaptotagmin Internalization and Recycling. Developmental Cell, 2006, 10, 233-244.	7.0	152
122	Stimulation of phosphatidylinositol kinase type I-mediated phosphatidylinositol (4,5)-bisphosphate synthesis by AP-2Â-cargo complexes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11934-11939.	7.1	132
123	Plasmalemmal Phosphatidylinositol-4,5-Bisphosphate Level Regulates the Releasable Vesicle Pool Size in Chromaffin Cells. Journal of Neuroscience, 2005, 25, 2557-2565.	3.6	208
124	Phosphatidylinositol-(4,5)-Bisphosphate Regulates Sorting Signal Recognition by the Clathrin-Associated Adaptor Complex AP2. Molecular Cell, 2005, 18, 519-531.	9.7	257
125	ARF6 stimulates clathrin/AP-2 recruitment to synaptic membranes by activating phosphatidylinositol phosphate kinase type Iî³. Journal of Cell Biology, 2003, 162, 113-124.	5.2	280
126	A putative role for intramolecular regulatory mechanisms in the adaptor function of amphiphysin in endocytosis. Neuropharmacology, 2003, 45, 787-796.	4.1	30

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127	A phosphatidylinositol (4,5)-bisphosphate binding site within Î¼2-adaptin regulates clathrin-mediated endocytosis. Journal of Cell Biology, 2002, 158, 209-214.	5.2	154
128	Human stoned B interacts with APâ€2 and synaptotagmin and facilitates clathrinâ€coated vesicle uncoating. EMBO Reports, 2001, 2, 634-640.	4.5	57
129	Functional partnership between amphiphysin and dynamin in clathrin-mediated endocytosis. Nature Cell Biology, 1999, 1, 33-39.	10.3	703
130	Generation of Coated Intermediates of Clathrin-Mediated Endocytosis on Protein-Free Liposomes. Cell, 1998, 94, 131-141.	28.9	342