Mark von Zastrow

List of Publications by Year
in descending order

121 papers	25,568 citations	9756 73 h-index	19690 117 g-index
164 all docs	164 docs citations	164 times ranked	28238 citing authors

#	Article	IF	Citations
1	A Live-Cell Imaging Assay for Nuclear Entry of cAMP-Dependent Protein Kinase Catalytic Subunits Stimulated by Endogenous GPCR Activation. Methods in Molecular Biology, 2022, 2483, 339-349.	0.4	0
2	A Molecular Landscape of Mouse Hippocampal Neuromodulation. Frontiers in Neural Circuits, 2022, 16, .	1.4	2
3	Spatial decoding of endosomal cAMP signals by a metastable cytoplasmic PKA network. Nature Chemical Biology, 2021, 17, 558-566.	3.9	31
4	A highâ€throughput CRISPR interference screen for dissecting functional regulators of GPCR/cAMP signaling. FASEB Journal, 2021, 35, .	0.2	1
5	Mechanisms for Regulating and Organizing Receptor Signaling by Endocytosis. Annual Review of Biochemistry, 2021, 90, 709-737.	5.0	51
6	Endosomal cAMP production broadly impacts the cellular phosphoproteome. Journal of Biological Chemistry, 2021, 297, 100907.	1.6	36
7	Proteomic Approaches to Investigate Regulated Trafficking and Signaling of G Proteinâ€"Coupled Receptors. Molecular Pharmacology, 2021, 99, 392-398.	1.0	3
8	A Discrete Presynaptic Vesicle Cycle for Neuromodulator Receptors. Neuron, 2020, 105, 663-677.e8.	3.8	42
9	A high-throughput CRISPR interference screen for dissecting functional regulators of GPCR/cAMP signaling. PLoS Genetics, 2020, 16, e1009103.	1.5	15
10	An expanded palette of dopamine sensors for multiplex imaging in vivo. Nature Methods, 2020, 17, 1147-1155.	9.0	134
11	Opioid Pharmacology under the Microscope. Molecular Pharmacology, 2020, 98, 425-432.	1.0	14
12	A SARS-CoV-2 protein interaction map reveals targets for drug repurposing. Nature, 2020, 583, 459-468.	13.7	3,542
13	Agonist-selective recruitment of engineered protein probes and of GRK2 by opioid receptors in living cells. ELife, 2020, 9, .	2.8	42
14	G protein-regulated endocytic trafficking of adenylyl cyclase type 9. ELife, 2020, 9, .	2.8	35
15	Imaging neuromodulators with high spatiotemporal resolution using genetically encoded indicators. Nature Protocols, 2019, 14, 3471-3505.	5.5	33
16	When trafficking and signaling mix: How subcellular location shapes G proteinâ€coupled receptor activation of heterotrimeric G proteins. Traffic, 2019, 20, 130-136.	1.3	84
17	Phosphorylated EGFR Dimers Are Not Sufficient to Activate Ras. Cell Reports, 2018, 22, 2593-2600.	2.9	62
18	Subcellular Organization of GPCR Signaling. Trends in Pharmacological Sciences, 2018, 39, 200-208.	4.0	187

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19	Subcellular localization of MC4R with ADCY3 at neuronal primary cilia underlies a common pathway for genetic predisposition to obesity. Nature Genetics, 2018, 50, 180-185.	9.4	175
20	Catalytic activation of Î²-arrestin by GPCRs. Nature, 2018, 557, 381-386.	13.7	175
21	Ultrafast neuronal imaging of dopamine dynamics with designed genetically encoded sensors. Science, 2018, 360, .	6.0	773
22	The Psychiatric Cell Map Initiative: A Convergent Systems Biological Approach to Illuminating Key Molecular Pathways in Neuropsychiatric Disorders. Cell, 2018, 174, 505-520.	13.5	108
23	A Genetically Encoded Biosensor Reveals Location Bias of Opioid Drug Action. Neuron, 2018, 98, 963-976.e5.	3.8	232
24	G Proteinâ€“Coupled Receptor Endocytosis Confers Uniformity in Responses to Chemically Distinct Ligands. Molecular Pharmacology, 2017, 91, 145-156.	1.0	30
25	Functional selectivity of GPCR-directed drug action through location bias. Nature Chemical Biology, 2017, 13, 799-806.	3.9	181
26	An Approach to Spatiotemporally Resolve Protein Interaction Networks in Living Cells. Cell, 2017, 169, 350-360.e12.	13.5	322
27	Genetic evidence that Î²-arrestins are dispensable for the initiation of Î² ₂ -adrenergic receptor signaling to ERK. Science Signaling, 2017, 10, .	1.6	155
28	Endosomal Phosphatidylinositol 3-Kinase Is Essential for Canonical GPCR Signaling. Molecular Pharmacology, 2017, 91, 65-73.	1.0	9
29	Time-gated detection of protein-protein interactions with transcriptional readout. ELife, 2017, 6, .	2.8	64
30	GIV/Girdin activates GÎ±i and inhibits GÎ±s via the same motif. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5721-30.	3.3	33
31	Retromer Endosome Exit Domains Serve Multiple Trafficking Destinations and Regulate Local G Protein Activation by GPCRs. Current Biology, 2016, 26, 3129-3142.	1.8	44
32	The Î±-Arrestin ARRDC3 Regulates the Endosomal Residence Time and Intracellular Signaling of the Î²2-Adrenergic Receptor. Journal of Biological Chemistry, 2016, 291, 14510-14525.	1.6	62
33	Molecular Pharmacology of<i>Î´</i>-Opioid Receptors. Pharmacological Reviews, 2016, 68, 631-700.	7.1	103
34	Effects of endocytosis on receptor-mediated signaling. Current Opinion in Cell Biology, 2015, 35, 137-143.	2.6	134
35	G Protein-coupled Receptor (GPCR) Signaling via Heterotrimeric G Proteins from Endosomes. Journal of Biological Chemistry, 2015, 290, 6689-6696.	1.6	128
36	Dopamine receptors reveal an essential role of IFT-B, KIF17, and Rab23 in delivering specific receptors to primary cilia. ELife, 2015, 4, .	2.8	73

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37	Investigating Signaling Consequences of GPCR Trafficking in the Endocytic Pathway. Methods in Enzymology, 2014, 535, 403-418.	0.4	7
38	Spatial encoding of cyclic AMP signaling specificity by GPCR endocytosis. Nature Chemical Biology, 2014, 10, 1061-1065.	3.9	238
39	Editorial overview: Cell regulation: The ins and outs of G protein-coupled receptors. Current Opinion in Cell Biology, 2014, 27, v-vi.	2.6	2
40	Retromer Mediates a Discrete Route of Local Membrane Delivery to Dendrites. Neuron, 2014, 82, 55-62.	3.8	121
41	GPCR signaling along the endocytic pathway. Current Opinion in Cell Biology, 2014, 27, 109-116.	2.6	170
42	Endocytosis, Signaling, and Beyond. Cold Spring Harbor Perspectives in Biology, 2014, 6, a016865-a016865.	2.3	130
43	Regulation of<i>Âµ</i>-Opioid Receptors: Desensitization, Phosphorylation, Internalization, and Tolerance. Pharmacological Reviews, 2013, 65, 223-254.	7.1	673
44	Conformational biosensors reveal GPCR signalling from endosomes. Nature, 2013, 495, 534-538.	13.7	713
45	Differentiation of Opioid Drug Effects by Hierarchical Multi-Site Phosphorylation. Molecular Pharmacology, 2013, 83, 633-639.	1.0	113
46	GPR88 Reveals a Discrete Function of Primary Cilia as Selective Insulators of GPCR Cross-Talk. PLoS ONE, 2013, 8, e70857.	1.1	61
47	Modulating Neuromodulation by Receptor Membrane Traffic in the Endocytic Pathway. Neuron, 2012, 76, 22-32.	3.8	45
48	A Chemical Screen Identifies Class A G-Protein Coupled Receptors As Regulators of Cilia. ACS Chemical Biology, 2012, 7, 911-919.	1.6	38
49	Regulation of Endocytic Clathrin Dynamics by Cargo Ubiquitination. Developmental Cell, 2012, 23, 519-532.	3.1	99
50	A Simple Cell-Based Assay Reveals That Diverse Neuropsychiatric Risk Genes Converge on Primary Cilia. PLoS ONE, 2012, 7, e46647.	1.1	65
51	Role of PDZ Proteins in Regulating Trafficking, Signaling, and Function of GPCRs: Means, Motif, and Opportunity. Advances in Pharmacology, 2011, 62, 279-314.	1.2	139
52	Recovery from Î¼-Opioid Receptor Desensitization after Chronic Treatment with Morphine and Methadone. Journal of Neuroscience, 2011, 31, 4434-4443.	1.7	84
53	Endocytosis Promotes Rapid Dopaminergic Signaling. Neuron, 2011, 71, 278-290.	3.8	167
54	Role of Ubiquitination in Endocytic Trafficking of Gâ€Proteinâ€Coupled Receptors. Traffic, 2011, 12, 137-148.	1.3	84

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55	The Role of Ubiquitination in Lysosomal Trafficking of Î¼â€Opioid Receptors. Traffic, 2011, 12, 170-184.	1.3	67
56	SNX27 mediates retromer tubule entry and endosome-to-plasma membrane trafficking of signalling receptors. Nature Cell Biology, 2011, 13, 715-721.	4.6	408
57	Quantitative Encoding of the Effect of a Partial Agonist on Individual Opioid Receptors by Multisite Phosphorylation and Threshold Detection. Science Signaling, 2011, 4, ra52.	1.6	98
58	Dysbindin Promotes the Post-Endocytic Sorting of G Protein-Coupled Receptors to Lysosomes. PLoS ONE, 2010, 5, e9325.	1.1	53
59	Functional Characterization of Vasopressin Type 2 Receptor Substitutions (R137H/C/L) Leading to Nephrogenic Diabetes Insipidus and Nephrogenic Syndrome of Inappropriate Antidiuresis: Implications for Treatments. Molecular Pharmacology, 2010, 77, 836-845.	1.0	59
60	SNX27 mediates PDZ-directed sorting from endosomes to the plasma membrane. Journal of Cell Biology, 2010, 190, 565-574.	2.3	222
61	Rapid Delivery of Internalized Signaling Receptors to the Somatodendritic Surface by Sequence-Specific Local Insertion. Journal of Neuroscience, 2010, 30, 11703-11714.	1.7	34
62	Regulation of opioid receptors by endocytic membrane traffic: Mechanisms and translational implications. Drug and Alcohol Dependence, 2010, 108, 166-171.	1.6	30
63	Sequence-Dependent Sorting of Recycling Proteins by Actin-Stabilized Endosomal Microdomains. Cell, 2010, 143, 761-773.	13.5	289
64	DISC1 Regulates Primary Cilia That Display Specific Dopamine Receptors. PLoS ONE, 2010, 5, e10902.	1.1	92
65	A functional genomics approach identifies GPCR endocytosisâ€regulating kinases. FASEB Journal, 2010, 24, 585.7.	0.2	0
66	Neurokinin 1 Receptors Regulate Morphine-Induced Endocytosis and Desensitization of Î¼-Opioid Receptors in CNS Neurons. Journal of Neuroscience, 2009, 29, 222-233.	1.7	60
67	Ubiquitination Regulates Proteolytic Processing of G Protein-coupled Receptors after Their Sorting to Lysosomes. Journal of Biological Chemistry, 2009, 284, 19361-19370.	1.6	71
68	Structure of an Arrestin2-Clathrin Complex Reveals a Novel Clathrin Binding Domain That Modulates Receptor Trafficking. Journal of Biological Chemistry, 2009, 284, 29860-29872.	1.6	108
69	Endocytosis and signalling: intertwining molecular networks. Nature Reviews Molecular Cell Biology, 2009, 10, 609-622.	16.1	995
70	Cargo-Mediated Regulation of a Rapid Rab4-Dependent Recycling Pathway. Molecular Biology of the Cell, 2009, 20, 2774-2784.	0.9	92
71	Regulation of GPCRs by Endocytic Membrane Trafficking and Its Potential Implications. Annual Review of Pharmacology and Toxicology, 2008, 48, 537-568.	4.2	526
72	Differential Activation and Trafficking of Î¼-Opioid Receptors in Brain Slices. Molecular Pharmacology, 2008, 74, 972-979.	1.0	97

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73	Alternative Splicing Determines the Post-endocytic Sorting Fate of G-protein-coupled Receptors. Journal of Biological Chemistry, 2008, 283, 35614-35621.	1.6	56
74	Aripiprazole has Functionally Selective Actions at Dopamine D2 Receptor-Mediated Signaling Pathways. Neuropsychopharmacology, 2007, 32, 67-77.	2.8	186
75	Real-Time Imaging of Discrete Exocytic Events Mediating Surface Delivery of AMPA Receptors. Journal of Neuroscience, 2007, 27, 11112-11121.	1.7	184
76	Functional Selectivity and Classical Concepts of Quantitative Pharmacology. Journal of Pharmacology and Experimental Therapeutics, 2007, 320, 1-13.	1.3	997
77	Microtubule Plus-End-Tracking Proteins Target Gap Junctions Directly from the Cell Interior to Adherens Junctions. Cell, 2007, 128, 547-560.	13.5	433
78	Signaling on the endocytic pathway. Current Opinion in Cell Biology, 2007, 19, 436-445.	2.6	247
79	Cargo Regulates Clathrin-Coated Pit Dynamics. Cell, 2006, 127, 113-124.	13.5	220
80	Distinct modes of regulated receptor insertion to the somatodendritic plasma membrane. Nature Neuroscience, 2006, 9, 622-627.	7.1	76
81	Essential role of Hrs in a recycling mechanism mediating functional resensitization of cell signaling. EMBO Journal, 2005, 24, 2265-2283.	3.5	113
82	Chemical Genetic Engineering of G Protein-coupled Receptor Kinase 2. Journal of Biological Chemistry, 2005, 280, 35051-35061.	1.6	26
83	Type I PDZ Ligands Are Sufficient to Promote Rapid Recycling of G Protein-coupled Receptors Independent of Binding to N-Ethylmaleimide-sensitive Factor*. Journal of Biological Chemistry, 2005, 280, 3305-3313.	1.6	62
84	Morphine Promotes Rapid, Arrestin-Dependent Endocytosis of Â-Opioid Receptors in Striatal Neurons. Journal of Neuroscience, 2005, 25, 7847-7857.	1.7	134
85	Mass Spectrometric Analysis of Agonist Effects on Posttranslational Modifications of the Î²-2 Adrenoceptor in Mammalian Cells. Biochemistry, 2005, 44, 6133-6143.	1.2	90
86	Identification of a Novel Endocytic Recycling Signal in the D1 Dopamine Receptor. Journal of Biological Chemistry, 2004, 279, 37461-37469.	1.6	67
87	Role of Mammalian Vacuolar Protein-sorting Proteins in Endocytic Trafficking of a Non-ubiquitinated G Protein-coupled Receptor to Lysosomes. Journal of Biological Chemistry, 2004, 279, 22522-22531.	1.6	107
88	Opioid Receptor Regulation. NeuroMolecular Medicine, 2004, 5, 051-058.	1.8	14
89	A cell biologistâ€™s perspective on physiological adaptation to opiate drugs. Neuropharmacology, 2004, 47, 286-292.	2.0	47
90	Regulated endocytosis of opioid receptors: cellular mechanisms and proposed roles in physiological adaptation to opiate drugs. Current Opinion in Neurobiology, 2003, 13, 348-353.	2.0	115

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91	Mechanisms regulating membrane trafficking of G protein-coupled receptors in the endocytic pathway. Life Sciences, 2003, 74, 217-224.	2.0	151
92	A Novel Endocytic Recycling Signal That Distinguishes the Membrane Trafficking of Naturally Occurring Opioid Receptors. Journal of Biological Chemistry, 2003, 278, 45978-45986.	1.6	171
93	Morphine Acutely Regulates Opioid Receptor Trafficking Selectively in Dendrites of Nucleus Accumbens Neurons. Journal of Neuroscience, 2003, 23, 4324-4332.	1.7	130
94	Ubiquitination-independent Trafficking of G Protein-coupled Receptors to Lysosomes. Journal of Biological Chemistry, 2002, 277, 50219-50222.	1.6	116
95	Modulation of Postendocytic Sorting of G Protein-Coupled Receptors. Science, 2002, 297, 615-620.	6.0	298
96	Regulation of Opioid Receptor Trafficking and Morphine Tolerance by Receptor Oligomerization. Cell, 2002, 108, 271-282.	13.5	308
97	Î¼-Opioid Receptors: Ligand-Dependent Activation of Potassium Conductance, Desensitization, and Internalization. Journal of Neuroscience, 2002, 22, 5769-5776.	1.7	154
98	Signal transduction and endocytosis: close encounters of many kinds. Nature Reviews Molecular Cell Biology, 2002, 3, 600-614.	16.1	763
99	Control of Synaptic Strength by Glial TNFalpha. Science, 2002, 295, 2282-2285.	6.0	1,211
100	Role of ampa receptor endocytosis in synaptic plasticity. Nature Reviews Neuroscience, 2001, 2, 315-324.	4.9	396
101	A Transplantable Sorting Signal That Is Sufficient to Mediate Rapid Recycling of G Protein-coupled Receptors. Journal of Biological Chemistry, 2001, 276, 44712-44720.	1.6	117
102	Heterologous Inhibition of G Protein-coupled Receptor Endocytosis Mediated by Receptor-specific Trafficking of Î²-Arrestins. Journal of Biological Chemistry, 2001, 276, 17442-17447.	1.6	33
103	A Phosphorylation-regulated Brake Mechanism Controls the Initial Endocytosis of Opioid Receptors but Is Not Required for Post-endocytic Sorting to Lysosomes. Journal of Biological Chemistry, 2001, 276, 34331-34338.	1.6	64
104	Regulation of AMPA receptor endocytosis by a signaling mechanism shared with LTD. Nature Neuroscience, 2000, 3, 1291-1300.	7.1	660
105	Downregulation of G protein-coupled receptors. Current Opinion in Neurobiology, 2000, 10, 365-369.	2.0	142
106	Type-specific Sorting of G Protein-coupled Receptors after Endocytosis. Journal of Biological Chemistry, 2000, 275, 11130-11140.	1.6	195
107	Rapid, Activation-Induced Redistribution of Ionotropic Glutamate Receptors in Cultured Hippocampal Neurons. Journal of Neuroscience, 1999, 19, 1263-1272.	1.7	195
108	Dissociation of Functional Roles of Dynamin in Receptor-mediated Endocytosis and Mitogenic Signal Transduction. Journal of Biological Chemistry, 1999, 274, 24575-24578.	1.6	106

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109	An Immunocytochemical Assay for Activity-Dependent Redistribution of Glutamate Receptors from the Postsynaptic Plasma Membrane. Annals of the New York Academy of Sciences, 1999, 868, 550-553.	1.8	6
110	A kinase-regulated PDZ-domain interaction controls endocytic sorting of the Î²2-adrenergic receptor. Nature, 1999, 401, 286-290.	13.7	637
111	Rapid redistribution of glutamate receptors contributes to long-term depression in hippocampal cultures. Nature Neuroscience, 1999, 2, 454-460.	7.1	411
112	Role of AMPA Receptor Cycling in Synaptic Transmission and Plasticity. Neuron, 1999, 24, 649-658.	3.8	641
113	Functional Dissociation of Î¼ Opioid Receptor Signaling and Endocytosis. Neuron, 1999, 23, 737-746.	3.8	409
114	Distinct Dynamin-dependent and -independent Mechanisms Target Structurally Homologous Dopamine Receptors to Different Endocytic Membranes. Journal of Cell Biology, 1999, 144, 31-43.	2.3	214
115	SH3 Binding Domains in the Dopamine D4 Receptorâ€. Biochemistry, 1998, 37, 15726-15736.	1.2	95
116	Phosphorylation Is Not Required for Dynamin-dependent Endocytosis of a Truncated Mutant Opioid Receptor. Journal of Biological Chemistry, 1998, 273, 24987-24991.	1.6	74
117	Regulated Endocytosis of G-protein-coupled Receptors by a Biochemically and Functionally Distinct Subpopulation of Clathrin-coated Pits. Journal of Biological Chemistry, 1998, 273, 24592-24602.	1.6	126
118	Î¼-Opioid Receptor Internalization: Opiate Drugs Have Differential Effects on a Conserved Endocytic Mechanism<i>In Vitro</i>and in the Mammalian Brain. Molecular Pharmacology, 1998, 53, 377-384.	1.0	294
119	A Novel Interaction between Adrenergic Receptors and the Î±-Subunit of Eukaryotic Initiation Factor 2B. Journal of Biological Chemistry, 1997, 272, 19099-19102.	1.6	70
120	Î´ and Îº Opioid Receptors Are Differentially Regulated by Dynamin-dependent Endocytosis When Activated by the Same Alkaloid Agonist. Journal of Biological Chemistry, 1997, 272, 27124-27130.	1.6	130
121	Morphine Activates Opioid Receptors without Causing Their Rapid Internalization. Journal of Biological Chemistry, 1996, 271, 19021-19024.	1.6	459