

Mark von Zastrow

List of Publications by Year in descending order

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121
papers

25,568
citations

9786

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19749

117
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164
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164
docs citations

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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. <i>Methods in Molecular Biology</i> , 2022, 2483, 339-349.	0.9	0
2	A Molecular Landscape of Mouse Hippocampal Neuromodulation. <i>Frontiers in Neural Circuits</i> , 2022, 16, .	2.8	2
3	Spatial decoding of endosomal cAMP signals by a metastable cytoplasmic PKA network. <i>Nature Chemical Biology</i> , 2021, 17, 558-566.	8.0	31
4	A high-throughput CRISPR interference screen for dissecting functional regulators of GPCR/cAMP signaling. <i>FASEB Journal</i> , 2021, 35, .	0.5	1
5	Mechanisms for Regulating and Organizing Receptor Signaling by Endocytosis. <i>Annual Review of Biochemistry</i> , 2021, 90, 709-737.	11.1	51
6	Endosomal cAMP production broadly impacts the cellular phosphoproteome. <i>Journal of Biological Chemistry</i> , 2021, 297, 100907.	3.4	36
7	Proteomic Approaches to Investigate Regulated Trafficking and Signaling of G Protein-Coupled Receptors. <i>Molecular Pharmacology</i> , 2021, 99, 392-398.	2.3	3
8	A Discrete Presynaptic Vesicle Cycle for Neuromodulator Receptors. <i>Neuron</i> , 2020, 105, 663-677.e8.	8.1	42
9	A high-throughput CRISPR interference screen for dissecting functional regulators of GPCR/cAMP signaling. <i>PLoS Genetics</i> , 2020, 16, e1009103.	3.5	15
10	An expanded palette of dopamine sensors for multiplex imaging in vivo. <i>Nature Methods</i> , 2020, 17, 1147-1155.	19.0	134
11	Opioid Pharmacology under the Microscope. <i>Molecular Pharmacology</i> , 2020, 98, 425-432.	2.3	14
12	A SARS-CoV-2 protein interaction map reveals targets for drug repurposing. <i>Nature</i> , 2020, 583, 459-468.	27.8	3,542
13	Agonist-selective recruitment of engineered protein probes and of GRK2 by opioid receptors in living cells. <i>ELife</i> , 2020, 9, .	6.0	42
14	G protein-regulated endocytic trafficking of adenylyl cyclase type 9. <i>ELife</i> , 2020, 9, .	6.0	35
15	Imaging neuromodulators with high spatiotemporal resolution using genetically encoded indicators. <i>Nature Protocols</i> , 2019, 14, 3471-3505.	12.0	33
16	When trafficking and signaling mix: How subcellular location shapes G protein-coupled receptor activation of heterotrimeric G proteins. <i>Traffic</i> , 2019, 20, 130-136.	2.7	84
17	Phosphorylated EGFR Dimers Are Not Sufficient to Activate Ras. <i>Cell Reports</i> , 2018, 22, 2593-2600.	6.4	62
18	Subcellular Organization of GPCR Signaling. <i>Trends in Pharmacological Sciences</i> , 2018, 39, 200-208.	8.7	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. <i>Nature Genetics</i> , 2018, 50, 180-185.	21.4	175
20	Catalytic activation of β^2 -arrestin by GPCRs. <i>Nature</i> , 2018, 557, 381-386.	27.8	175
21	Ultrafast neuronal imaging of dopamine dynamics with designed genetically encoded sensors. <i>Science</i> , 2018, 360, .	12.6	773
22	The Psychiatric Cell Map Initiative: A Convergent Systems Biological Approach to Illuminating Key Molecular Pathways in Neuropsychiatric Disorders. <i>Cell</i> , 2018, 174, 505-520.	28.9	108
23	A Genetically Encoded Biosensor Reveals Location Bias of Opioid Drug Action. <i>Neuron</i> , 2018, 98, 963-976.e5.	8.1	232
24	G Protein-coupled Receptor Endocytosis Confers Uniformity in Responses to Chemically Distinct Ligands. <i>Molecular Pharmacology</i> , 2017, 91, 145-156.	2.3	30
25	Functional selectivity of GPCR-directed drug action through location bias. <i>Nature Chemical Biology</i> , 2017, 13, 799-806.	8.0	181
26	An Approach to Spatiotemporally Resolve Protein Interaction Networks in Living Cells. <i>Cell</i> , 2017, 169, 350-360.e12.	28.9	322
27	Genetic evidence that β^2 -arrestins are dispensable for the initiation of β^2 -adrenergic receptor signaling to ERK. <i>Science Signaling</i> , 2017, 10, .	3.6	155
28	Endosomal Phosphatidylinositol 3-Kinase Is Essential for Canonical GPCR Signaling. <i>Molecular Pharmacology</i> , 2017, 91, 65-73.	2.3	9
29	Time-gated detection of protein-protein interactions with transcriptional readout. <i>ELife</i> , 2017, 6, .	6.0	64
30	GIV/Girdin activates G_{i1} and inhibits G_{i2} s via the same motif. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5721-30.	7.1	33
31	Retromer Endosome Exit Domains Serve Multiple Trafficking Destinations and Regulate Local G Protein Activation by GPCRs. <i>Current Biology</i> , 2016, 26, 3129-3142.	3.9	44
32	The β^2 -Arrestin ARRDC3 Regulates the Endosomal Residence Time and Intracellular Signaling of the β^2 -Adrenergic Receptor. <i>Journal of Biological Chemistry</i> , 2016, 291, 14510-14525.	3.4	62
33	Molecular Pharmacology of μ -Opioid Receptors. <i>Pharmacological Reviews</i> , 2016, 68, 631-700.	16.0	103
34	Effects of endocytosis on receptor-mediated signaling. <i>Current Opinion in Cell Biology</i> , 2015, 35, 137-143.	5.4	134
35	G Protein-coupled Receptor (GPCR) Signaling via Heterotrimeric G Proteins from Endosomes. <i>Journal of Biological Chemistry</i> , 2015, 290, 6689-6696.	3.4	128
36	Dopamine receptors reveal an essential role of IFT-B, KIF17, and Rab23 in delivering specific receptors to primary cilia. <i>ELife</i> , 2015, 4, .	6.0	73

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37	Investigating Signaling Consequences of GPCR Trafficking in the Endocytic Pathway. <i>Methods in Enzymology</i> , 2014, 535, 403-418.	1.0	7
38	Spatial encoding of cyclic AMP signaling specificity by GPCR endocytosis. <i>Nature Chemical Biology</i> , 2014, 10, 1061-1065.	8.0	238
39	Editorial overview: Cell regulation: The ins and outs of G protein-coupled receptors. <i>Current Opinion in Cell Biology</i> , 2014, 27, v-vi.	5.4	2
40	Retromer Mediates a Discrete Route of Local Membrane Delivery to Dendrites. <i>Neuron</i> , 2014, 82, 55-62.	8.1	121
41	GPCR signaling along the endocytic pathway. <i>Current Opinion in Cell Biology</i> , 2014, 27, 109-116.	5.4	170
42	Endocytosis, Signaling, and Beyond. <i>Cold Spring Harbor Perspectives in Biology</i> , 2014, 6, a016865-a016865.	5.5	130
43	Regulation of μ -Opioid Receptors: Desensitization, Phosphorylation, Internalization, and Tolerance. <i>Pharmacological Reviews</i> , 2013, 65, 223-254.	16.0	673
44	Conformational biosensors reveal GPCR signalling from endosomes. <i>Nature</i> , 2013, 495, 534-538.	27.8	713
45	Differentiation of Opioid Drug Effects by Hierarchical Multi-Site Phosphorylation. <i>Molecular Pharmacology</i> , 2013, 83, 633-639.	2.3	113
46	GPR88 Reveals a Discrete Function of Primary Cilia as Selective Insulators of GPCR Cross-Talk. <i>PLoS ONE</i> , 2013, 8, e70857.	2.5	61
47	Modulating Neuromodulation by Receptor Membrane Traffic in the Endocytic Pathway. <i>Neuron</i> , 2012, 76, 22-32.	8.1	45
48	A Chemical Screen Identifies Class A G-Protein Coupled Receptors As Regulators of Cilia. <i>ACS Chemical Biology</i> , 2012, 7, 911-919.	3.4	38
49	Regulation of Endocytic Clathrin Dynamics by Cargo Ubiquitination. <i>Developmental Cell</i> , 2012, 23, 519-532.	7.0	99
50	A Simple Cell-Based Assay Reveals That Diverse Neuropsychiatric Risk Genes Converge on Primary Cilia. <i>PLoS ONE</i> , 2012, 7, e46647.	2.5	65
51	Role of PDZ Proteins in Regulating Trafficking, Signaling, and Function of GPCRs: Means, Motif, and Opportunity. <i>Advances in Pharmacology</i> , 2011, 62, 279-314.	2.0	139
52	Recovery from μ -Opioid Receptor Desensitization after Chronic Treatment with Morphine and Methadone. <i>Journal of Neuroscience</i> , 2011, 31, 4434-4443.	3.6	84
53	Endocytosis Promotes Rapid Dopaminergic Signaling. <i>Neuron</i> , 2011, 71, 278-290.	8.1	167
54	Role of Ubiquitination in Endocytic Trafficking of G-Protein-Coupled Receptors. <i>Traffic</i> , 2011, 12, 137-148.	2.7	84

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55	The Role of Ubiquitination in Lysosomal Trafficking of μ -Opioid Receptors. <i>Traffic</i> , 2011, 12, 170-184.	2.7	67
56	SNX27 mediates retromer tubule entry and endosome-to-plasma membrane trafficking of signalling receptors. <i>Nature Cell Biology</i> , 2011, 13, 715-721.	10.3	408
57	Quantitative Encoding of the Effect of a Partial Agonist on Individual Opioid Receptors by Multisite Phosphorylation and Threshold Detection. <i>Science Signaling</i> , 2011, 4, ra52.	3.6	98
58	Dysbindin Promotes the Post-Endocytic Sorting of G Protein-Coupled Receptors to Lysosomes. <i>PLoS ONE</i> , 2010, 5, e9325.	2.5	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. <i>Molecular Pharmacology</i> , 2010, 77, 836-845.	2.3	59
60	SNX27 mediates PDZ-directed sorting from endosomes to the plasma membrane. <i>Journal of Cell Biology</i> , 2010, 190, 565-574.	5.2	222
61	Rapid Delivery of Internalized Signaling Receptors to the Somatodendritic Surface by Sequence-Specific Local Insertion. <i>Journal of Neuroscience</i> , 2010, 30, 11703-11714.	3.6	34
62	Regulation of opioid receptors by endocytic membrane traffic: Mechanisms and translational implications. <i>Drug and Alcohol Dependence</i> , 2010, 108, 166-171.	3.2	30
63	Sequence-Dependent Sorting of Recycling Proteins by Actin-Stabilized Endosomal Microdomains. <i>Cell</i> , 2010, 143, 761-773.	28.9	289
64	DISC1 Regulates Primary Cilia That Display Specific Dopamine Receptors. <i>PLoS ONE</i> , 2010, 5, e10902.	2.5	92
65	A functional genomics approach identifies GPCR endocytosis-regulating kinases. <i>FASEB Journal</i> , 2010, 24, 585.7.	0.5	0
66	Neurokinin 1 Receptors Regulate Morphine-Induced Endocytosis and Desensitization of μ -Opioid Receptors in CNS Neurons. <i>Journal of Neuroscience</i> , 2009, 29, 222-233.	3.6	60
67	Ubiquitination Regulates Proteolytic Processing of G Protein-coupled Receptors after Their Sorting to Lysosomes. <i>Journal of Biological Chemistry</i> , 2009, 284, 19361-19370.	3.4	71
68	Structure of an Arrestin2-Clathrin Complex Reveals a Novel Clathrin Binding Domain That Modulates Receptor Trafficking. <i>Journal of Biological Chemistry</i> , 2009, 284, 29860-29872.	3.4	108
69	Endocytosis and signalling: intertwining molecular networks. <i>Nature Reviews Molecular Cell Biology</i> , 2009, 10, 609-622.	37.0	995
70	Cargo-Mediated Regulation of a Rapid Rab4-Dependent Recycling Pathway. <i>Molecular Biology of the Cell</i> , 2009, 20, 2774-2784.	2.1	92
71	Regulation of GPCRs by Endocytic Membrane Trafficking and Its Potential Implications. <i>Annual Review of Pharmacology and Toxicology</i> , 2008, 48, 537-568.	9.4	526
72	Differential Activation and Trafficking of μ -Opioid Receptors in Brain Slices. <i>Molecular Pharmacology</i> , 2008, 74, 972-979.	2.3	97

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73	Alternative Splicing Determines the Post-endocytic Sorting Fate of G-protein-coupled Receptors. <i>Journal of Biological Chemistry</i> , 2008, 283, 35614-35621.	3.4	56
74	Aripiprazole has Functionally Selective Actions at Dopamine D2 Receptor-Mediated Signaling Pathways. <i>Neuropsychopharmacology</i> , 2007, 32, 67-77.	5.4	186
75	Real-Time Imaging of Discrete Exocytic Events Mediating Surface Delivery of AMPA Receptors. <i>Journal of Neuroscience</i> , 2007, 27, 11112-11121.	3.6	184
76	Functional Selectivity and Classical Concepts of Quantitative Pharmacology. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2007, 320, 1-13.	2.5	997
77	Microtubule Plus-End-Tracking Proteins Target Gap Junctions Directly from the Cell Interior to Adherens Junctions. <i>Cell</i> , 2007, 128, 547-560.	28.9	433
78	Signaling on the endocytic pathway. <i>Current Opinion in Cell Biology</i> , 2007, 19, 436-445.	5.4	247
79	Cargo Regulates Clathrin-Coated Pit Dynamics. <i>Cell</i> , 2006, 127, 113-124.	28.9	220
80	Distinct modes of regulated receptor insertion to the somatodendritic plasma membrane. <i>Nature Neuroscience</i> , 2006, 9, 622-627.	14.8	76
81	Essential role of Hrs in a recycling mechanism mediating functional resensitization of cell signaling. <i>EMBO Journal</i> , 2005, 24, 2265-2283.	7.8	113
82	Chemical Genetic Engineering of G Protein-coupled Receptor Kinase 2. <i>Journal of Biological Chemistry</i> , 2005, 280, 35051-35061.	3.4	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*. <i>Journal of Biological Chemistry</i> , 2005, 280, 3305-3313.	3.4	62
84	Morphine Promotes Rapid, Arrestin-Dependent Endocytosis of μ -Opioid Receptors in Striatal Neurons. <i>Journal of Neuroscience</i> , 2005, 25, 7847-7857.	3.6	134
85	Mass Spectrometric Analysis of Agonist Effects on Posttranslational Modifications of the β -2 Adrenoceptor in Mammalian Cells. <i>Biochemistry</i> , 2005, 44, 6133-6143.	2.5	90
86	Identification of a Novel Endocytic Recycling Signal in the D1 Dopamine Receptor. <i>Journal of Biological Chemistry</i> , 2004, 279, 37461-37469.	3.4	67
87	Role of Mammalian Vacuolar Protein-sorting Proteins in Endocytic Trafficking of a Non-ubiquitinated G Protein-coupled Receptor to Lysosomes. <i>Journal of Biological Chemistry</i> , 2004, 279, 22522-22531.	3.4	107
88	Opioid Receptor Regulation. <i>NeuroMolecular Medicine</i> , 2004, 5, 051-058.	3.4	14
89	A cell biologist's perspective on physiological adaptation to opiate drugs. <i>Neuropharmacology</i> , 2004, 47, 286-292.	4.1	47
90	Regulated endocytosis of opioid receptors: cellular mechanisms and proposed roles in physiological adaptation to opiate drugs. <i>Current Opinion in Neurobiology</i> , 2003, 13, 348-353.	4.2	115

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91	Mechanisms regulating membrane trafficking of G protein-coupled receptors in the endocytic pathway. <i>Life Sciences</i> , 2003, 74, 217-224.	4.3	151
92	A Novel Endocytic Recycling Signal That Distinguishes the Membrane Trafficking of Naturally Occurring Opioid Receptors. <i>Journal of Biological Chemistry</i> , 2003, 278, 45978-45986.	3.4	171
93	Morphine Acutely Regulates Opioid Receptor Trafficking Selectively in Dendrites of Nucleus Accumbens Neurons. <i>Journal of Neuroscience</i> , 2003, 23, 4324-4332.	3.6	130
94	Ubiquitination-independent Trafficking of G Protein-coupled Receptors to Lysosomes. <i>Journal of Biological Chemistry</i> , 2002, 277, 50219-50222.	3.4	116
95	Modulation of Postendocytic Sorting of G Protein-Coupled Receptors. <i>Science</i> , 2002, 297, 615-620.	12.6	298
96	Regulation of Opioid Receptor Trafficking and Morphine Tolerance by Receptor Oligomerization. <i>Cell</i> , 2002, 108, 271-282.	28.9	308
97	μ -Opioid Receptors: Ligand-Dependent Activation of Potassium Conductance, Desensitization, and Internalization. <i>Journal of Neuroscience</i> , 2002, 22, 5769-5776.	3.6	154
98	Signal transduction and endocytosis: close encounters of many kinds. <i>Nature Reviews Molecular Cell Biology</i> , 2002, 3, 600-614.	37.0	763
99	Control of Synaptic Strength by Glial TNF α . <i>Science</i> , 2002, 295, 2282-2285.	12.6	1,211
100	Role of ampa receptor endocytosis in synaptic plasticity. <i>Nature Reviews Neuroscience</i> , 2001, 2, 315-324.	10.2	396
101	A Transplantable Sorting Signal That Is Sufficient to Mediate Rapid Recycling of G Protein-coupled Receptors. <i>Journal of Biological Chemistry</i> , 2001, 276, 44712-44720.	3.4	117
102	Heterologous Inhibition of G Protein-coupled Receptor Endocytosis Mediated by Receptor-specific Trafficking of β -Arrestins. <i>Journal of Biological Chemistry</i> , 2001, 276, 17442-17447.	3.4	33
103	A Phosphorylation-regulated Brake Mechanism Controls the Initial Endocytosis of Opioid Receptors but Is Not Required for Post-endocytic Sorting to Lysosomes. <i>Journal of Biological Chemistry</i> , 2001, 276, 34331-34338.	3.4	64
104	Regulation of AMPA receptor endocytosis by a signaling mechanism shared with LTD. <i>Nature Neuroscience</i> , 2000, 3, 1291-1300.	14.8	660
105	Downregulation of G protein-coupled receptors. <i>Current Opinion in Neurobiology</i> , 2000, 10, 365-369.	4.2	142
106	Type-specific Sorting of G Protein-coupled Receptors after Endocytosis. <i>Journal of Biological Chemistry</i> , 2000, 275, 11130-11140.	3.4	195
107	Rapid, Activation-Induced Redistribution of Ionotropic Glutamate Receptors in Cultured Hippocampal Neurons. <i>Journal of Neuroscience</i> , 1999, 19, 1263-1272.	3.6	195
108	Dissociation of Functional Roles of Dynamin in Receptor-mediated Endocytosis and Mitogenic Signal Transduction. <i>Journal of Biological Chemistry</i> , 1999, 274, 24575-24578.	3.4	106

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109	An Immunocytochemical Assay for Activity-Dependent Redistribution of Glutamate Receptors from the Postsynaptic Plasma Membrane. <i>Annals of the New York Academy of Sciences</i> , 1999, 868, 550-553.	3.8	6
110	A kinase-regulated PDZ-domain interaction controls endocytic sorting of the β_2 -adrenergic receptor. <i>Nature</i> , 1999, 401, 286-290.	27.8	637
111	Rapid redistribution of glutamate receptors contributes to long-term depression in hippocampal cultures. <i>Nature Neuroscience</i> , 1999, 2, 454-460.	14.8	411
112	Role of AMPA Receptor Cycling in Synaptic Transmission and Plasticity. <i>Neuron</i> , 1999, 24, 649-658.	8.1	641
113	Functional Dissociation of μ Opioid Receptor Signaling and Endocytosis. <i>Neuron</i> , 1999, 23, 737-746.	8.1	409
114	Distinct Dynamin-dependent and -independent Mechanisms Target Structurally Homologous Dopamine Receptors to Different Endocytic Membranes. <i>Journal of Cell Biology</i> , 1999, 144, 31-43.	5.2	214
115	SH3 Binding Domains in the Dopamine D4 Receptor. <i>Biochemistry</i> , 1998, 37, 15726-15736.	2.5	95
116	Phosphorylation Is Not Required for Dynamin-dependent Endocytosis of a Truncated Mutant Opioid Receptor. <i>Journal of Biological Chemistry</i> , 1998, 273, 24987-24991.	3.4	74
117	Regulated Endocytosis of G-protein-coupled Receptors by a Biochemically and Functionally Distinct Subpopulation of Clathrin-coated Pits. <i>Journal of Biological Chemistry</i> , 1998, 273, 24592-24602.	3.4	126
118	μ -Opioid Receptor Internalization: Opiate Drugs Have Differential Effects on a Conserved Endocytic Mechanism <i>In Vitro</i> and in the Mammalian Brain. <i>Molecular Pharmacology</i> , 1998, 53, 377-384.	2.3	294
119	A Novel Interaction between Adrenergic Receptors and the β -Subunit of Eukaryotic Initiation Factor 2B. <i>Journal of Biological Chemistry</i> , 1997, 272, 19099-19102.	3.4	70
120	μ and δ Opioid Receptors Are Differentially Regulated by Dynamin-dependent Endocytosis When Activated by the Same Alkaloid Agonist. <i>Journal of Biological Chemistry</i> , 1997, 272, 27124-27130.	3.4	130
121	Morphine Activates Opioid Receptors without Causing Their Rapid Internalization. <i>Journal of Biological Chemistry</i> , 1996, 271, 19021-19024.	3.4	459