

Robert J Lefkowitz

List of Publications by Year in descending order

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155
papers

42,738
citations

3333

91
h-index

7944

149
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157
all docs

157
docs citations

157
times ranked

21105
citing authors

#	ARTICLE	IF	CITATIONS
1	Seven-transmembrane receptors. <i>Nature Reviews Molecular Cell Biology</i> , 2002, 3, 639-650.	16.1	2,357
2	Transduction of Receptor Signals by β -Arrestins. <i>Science</i> , 2005, 308, 512-517.	6.0	1,570
3	Cloning of the gene and cDNA for mammalian β^2 -adrenergic receptor and homology with rhodopsin. <i>Nature</i> , 1986, 321, 75-79.	13.7	1,284
4	β^2 -Arrestins and Cell Signaling. <i>Annual Review of Physiology</i> , 2007, 69, 483-510.	5.6	1,277
5	Turning off the signal: desensitization of β^2 -adrenergic receptor function. <i>FASEB Journal</i> , 1990, 4, 2881-2889.	0.2	1,209
6	G PROTEIN-COUPLED RECEPTOR KINASES. <i>Annual Review of Biochemistry</i> , 1998, 67, 653-692.	5.0	1,194
7	Switching of the coupling of the β^2 -adrenergic receptor to different G proteins by protein kinase A. <i>Nature</i> , 1997, 390, 88-91.	13.7	1,176
8	Enhanced Morphine Analgesia in Mice Lacking β -Arrestin 2. <i>Science</i> , 1999, 286, 2495-2498.	6.0	953
9	The role of β -arrestins in the termination and transduction of G-protein-coupled receptor signals. <i>Journal of Cell Science</i> , 2002, 115, 455-465.	1.2	935
10	Seven-transmembrane-spanning receptors and heart function. <i>Nature</i> , 2002, 415, 206-212.	13.7	862
11	β^4 -Opioid receptor desensitization by β^2 -arrestin-2 determines morphine tolerance but not dependence. <i>Nature</i> , 2000, 408, 720-723.	13.7	834
12	The role of beta-arrestins in the termination and transduction of G-protein-coupled receptor signals. <i>Journal of Cell Science</i> , 2002, 115, 455-65.	1.2	780
13	Molecular mechanisms of receptor desensitization using the β^2 -adrenergic receptor-coupled adenylate cyclase system as a model. <i>Nature</i> , 1985, 317, 124-129.	13.7	758
14	beta -Arrestin 2: A Receptor-Regulated MAPK Scaffold for the Activation of JNK3. , 2000, 290, 1574-1577.		752
15	Teaching old receptors new tricks: biasing seven-transmembrane receptors. <i>Nature Reviews Drug Discovery</i> , 2010, 9, 373-386.	21.5	724
16	β^2 -Arrestin-dependent, G Protein-independent ERK1/2 Activation by the β^2 Adrenergic Receptor. <i>Journal of Biological Chemistry</i> , 2006, 281, 1261-1273.	1.6	651
17	β^2 -arrestin-mediated receptor trafficking and signal transduction. <i>Trends in Pharmacological Sciences</i> , 2011, 32, 521-533.	4.0	628
18	Independent β -arrestin 2 and G protein-mediated pathways for angiotensin II activation of extracellular signal-regulated kinases 1 and 2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 10782-10787.	3.3	620

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19	The genomic clone G-21 which resembles a β^2 -adrenergic receptor sequence encodes the 5-HT _{1A} receptor. <i>Nature</i> , 1988, 335, 358-360.	13.7	611
20	The β^2 -adrenergic receptor interacts with the Na ⁺ /H ⁺ -exchanger regulatory factor to control Na ⁺ /H ⁺ exchange. <i>Nature</i> , 1998, 392, 626-630.	13.7	566
21	Receptor-tyrosine-kinase- and G β γ -mediated MAP kinase activation by a common signalling pathway. <i>Nature</i> , 1995, 376, 781-784.	13.7	554
22	A unique mechanism of β^2 -blocker action: Carvedilol stimulates β^2 -arrestin signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 16657-16662.	3.3	545
23	Cross-talk between cellular signalling pathways suggested by phorbol-ester-induced adenylate cyclase phosphorylation. <i>Nature</i> , 1987, 327, 67-70.	13.7	538
24	Molecular Mechanism of β^2 -Arrestin-Biased Agonism at Seven-Transmembrane Receptors. <i>Annual Review of Pharmacology and Toxicology</i> , 2012, 52, 179-197.	4.2	536
25	Distinct Phosphorylation Sites on the β^2 Adrenergic Receptor Establish a Barcode That Encodes Differential Functions of β^2 -Arrestin. <i>Science Signaling</i> , 2011, 4, ra51.	1.6	535
26	Biased signalling: from simple switches to allosteric microprocessors. <i>Nature Reviews Drug Discovery</i> , 2018, 17, 243-260.	21.5	524
27	An intronless gene encoding a potential member of the family of receptors coupled to guanine nucleotide regulatory proteins. <i>Nature</i> , 1987, 329, 75-79.	13.7	513
28	β^2 -arrestin- but not G protein-mediated signaling by the β -receptor CXCR7. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 628-632.	3.3	499
29	Protein kinases that phosphorylate activated G protein-coupled receptors. <i>FASEB Journal</i> , 1995, 9, 175-182.	0.2	494
30	Activation of the cloned muscarinic potassium channel by G protein $\beta\gamma$ subunits. <i>Nature</i> , 1994, 370, 143-146.	13.7	484
31	Role of c-Src Tyrosine Kinase in G Protein-coupled Receptor and G β γ Subunit-mediated Activation of Mitogen-activated Protein Kinases. <i>Journal of Biological Chemistry</i> , 1996, 271, 19443-19450.	1.6	483
32	Therapeutic potential of β^2 -arrestin- and G protein-biased agonists. <i>Trends in Molecular Medicine</i> , 2011, 17, 126-139.	3.5	469
33	Differential Kinetic and Spatial Patterns of β^2 -Arrestin and G Protein-mediated ERK Activation by the Angiotensin II Receptor. <i>Journal of Biological Chemistry</i> , 2004, 279, 35518-35525.	1.6	455
34	GPCR-G Protein- β^2 -Arrestin Super-Complex Mediates Sustained G Protein Signaling. <i>Cell</i> , 2016, 166, 907-919.	13.5	443
35	Removal of phosphorylation sites from the β^2 -adrenergic receptor delays onset of agonist-promoted desensitization. <i>Nature</i> , 1988, 333, 370-373.	13.7	439
36	Visualization of arrestin recruitment by a G-protein-coupled receptor. <i>Nature</i> , 2014, 512, 218-222.	13.7	433

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37	Physiological effects of inverse agonists in transgenic mice with myocardial overexpression of the β_2 -adrenoceptor. <i>Nature</i> , 1995, 374, 272-276.	13.7	431
38	Distinct β -Arrestin- and G Protein-dependent Pathways for Parathyroid Hormone Receptor-stimulated ERK1/2 Activation. <i>Journal of Biological Chemistry</i> , 2006, 281, 10856-10864.	1.6	422
39	$\beta_2\beta_3$ Subunits Mediate Src-dependent Phosphorylation of the Epidermal Growth Factor Receptor. <i>Journal of Biological Chemistry</i> , 1997, 272, 4637-4644.	1.6	420
40	Classical and new roles of β -arrestins in the regulation of G-PROTEIN-COUPLED receptors. <i>Nature Reviews Neuroscience</i> , 2001, 2, 727-733.	4.9	413
41	β -Arrestin-mediated β_1 -adrenergic receptor transactivation of the EGFR confers cardioprotection. <i>Journal of Clinical Investigation</i> , 2007, 117, 2445-2458.	3.9	405
42	Distinct Pathways of Gi- and Gq-mediated Mitogen-activated Protein Kinase Activation. <i>Journal of Biological Chemistry</i> , 1995, 270, 17148-17153.	1.6	397
43	Structure of active β -arrestin-1 bound to a G-protein-coupled receptor phosphopeptide. <i>Nature</i> , 2013, 497, 137-141.	13.7	393
44	Emerging paradigms of β -arrestin-dependent seven transmembrane receptor signaling. <i>Trends in Biochemical Sciences</i> , 2011, 36, 457-469.	3.7	380
45	Historical review: A brief history and personal retrospective of seven-transmembrane receptors. <i>Trends in Pharmacological Sciences</i> , 2004, 25, 413-422.	4.0	363
46	Keeping G Proteins at Bay: A Complex Between G Protein-Coupled Receptor Kinase 2 and Gbetagamma. <i>Science</i> , 2003, 300, 1256-1262.	6.0	361
47	A stress response pathway regulates DNA damage through β_2 -adrenoreceptors and β -arrestin-1. <i>Nature</i> , 2011, 477, 349-353.	13.7	360
48	β -Arrestin Scaffolding of the ERK Cascade Enhances Cytosolic ERK Activity but Inhibits ERK-mediated Transcription following Angiotensin AT1a Receptor Stimulation. <i>Journal of Biological Chemistry</i> , 2002, 277, 9429-9436.	1.6	345
49	Quantifying Ligand Bias at Seven-Transmembrane Receptors. <i>Molecular Pharmacology</i> , 2011, 80, 367-377.	1.0	341
50	Functional antagonism of different G protein-coupled receptor kinases for β -arrestin-mediated angiotensin II receptor signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 1442-1447.	3.3	318
51	The Stability of the G Protein-coupled Receptor- β -Arrestin Interaction Determines the Mechanism and Functional Consequence of ERK Activation. <i>Journal of Biological Chemistry</i> , 2003, 278, 6258-6267.	1.6	316
52	Isoprenylation in regulation of signal transduction by G-protein-coupled receptor kinases. <i>Nature</i> , 1992, 359, 147-150.	13.7	310
53	Identification, Quantification, and Localization of mRNA for Three Distinct Alpha ₁ Adrenergic Receptor Subtypes in Human Prostate. <i>Journal of Urology</i> , 1993, 150, 546-551.	0.2	310
54	Different G protein-coupled receptor kinases govern G protein and β -arrestin-mediated signaling of V2 vasopressin receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 1448-1453.	3.3	298

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55	Allosteric nanobodies reveal the dynamic range and diverse mechanisms of G-protein-coupled receptor activation. <i>Nature</i> , 2016, 535, 448-452.	13.7	290
56	Distinct conformations of GPCR β -arrestin complexes mediate desensitization, signaling, and endocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2562-2567.	3.3	281
57	New Roles for β -Arrestins in Cell Signaling: Not Just for Seven-Transmembrane Receptors. <i>Molecular Cell</i> , 2006, 24, 643-652.	4.5	273
58	β -arrestins: traffic cops of cell signaling. <i>Current Opinion in Cell Biology</i> , 2004, 16, 162-168.	2.6	269
59	A region of adenylyl cyclase 2 critical for regulation by G protein beta gamma subunits. <i>Science</i> , 1995, 268, 1166-1169.	6.0	261
60	Recent developments in biased agonism. <i>Current Opinion in Cell Biology</i> , 2014, 27, 18-24.	2.6	247
61	Structure of the M2 muscarinic receptor β -arrestin complex in a lipid nanodisc. <i>Nature</i> , 2020, 579, 297-302.	13.7	238
62	β -Arrestin-biased Agonism at the β -Adrenergic Receptor. <i>Journal of Biological Chemistry</i> , 2008, 283, 5669-5676.	1.6	226
63	A Brief History of G-Protein Coupled Receptors (Nobel Lecture). <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6366-6378.	7.2	222
64	Desensitization, internalization, and signaling functions of β -arrestins demonstrated by RNA interference. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1740-1744.	3.3	210
65	Light-dependent phosphorylation of rhodopsin by β -adrenergic receptor kinase. <i>Nature</i> , 1986, 321, 869-872.	13.7	207
66	Identification of the G Protein-coupled Receptor Kinase Phosphorylation Sites in the Human β -Adrenergic Receptor. <i>Journal of Biological Chemistry</i> , 1996, 271, 13796-13803.	1.6	205
67	Angiotensin Analogs with Divergent Bias Stabilize Distinct Receptor Conformations. <i>Cell</i> , 2019, 176, 468-478.e11.	13.5	194
68	Protein Kinase A-mediated Phosphorylation of the β -Adrenergic Receptor Regulates Its Coupling to Gs and Gi. <i>Journal of Biological Chemistry</i> , 2002, 277, 31249-31256.	1.6	175
69	Manifold roles of β -arrestins in GPCR signaling elucidated with siRNA and CRISPR/Cas9. <i>Science Signaling</i> , 2018, 11, .	1.6	169
70	Molecular mechanism of biased signaling in a prototypical G protein-coupled receptor. <i>Science</i> , 2020, 367, 881-887.	6.0	168
71	β -Arrestin-2 regulates the development of allergic asthma. <i>Journal of Clinical Investigation</i> , 2003, 112, 566-574.	3.9	166
72	Dancing with Different Partners: Protein Kinase A Phosphorylation of Seven Membrane-Spanning Receptors Regulates Their G Protein-Coupling Specificity. <i>Molecular Pharmacology</i> , 2002, 62, 971-974.	1.0	162

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73	Reciprocal Regulation of Angiotensin Receptor-activated Extracellular Signal-regulated Kinases by \hat{I}^2 -Arrestins 1 and 2. <i>Journal of Biological Chemistry</i> , 2004, 279, 7807-7811.	1.6	157
74	Constitutive Protease-activated Receptor-2-mediated Migration of MDA MB-231 Breast Cancer Cells Requires Both \hat{I}^2 -Arrestin-1 and -2. <i>Journal of Biological Chemistry</i> , 2004, 279, 55419-55424.	1.6	155
75	Angiotensin and biased analogs induce structurally distinct active conformations within a GPCR. <i>Science</i> , 2020, 367, 888-892.	6.0	150
76	Mechanism of intracellular allosteric \hat{I}^2 AR antagonist revealed by X-ray crystal structure. <i>Nature</i> , 2017, 548, 480-484.	13.7	148
77	Conformational Basis of G Protein-Coupled Receptor Signaling Versatility. <i>Trends in Cell Biology</i> , 2020, 30, 736-747.	3.6	147
78	Distinctive Activation Mechanism for Angiotensin Receptor Revealed by a Synthetic Nanobody. <i>Cell</i> , 2019, 176, 479-490.e12.	13.5	143
79	Structure of an endosomal signaling GPCRâ€G proteinâ€ \hat{I}^2 -arrestin megacomplex. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 1123-1131.	3.6	139
80	Activation-dependent Conformational Changes in \hat{I}^2 -Arrestin 2. <i>Journal of Biological Chemistry</i> , 2004, 279, 55744-55753.	1.6	135
81	Pharmacological Characterization of Membrane-Expressed Human Trace Amine-Associated Receptor 1 (TAAR1) by a Bioluminescence Resonance Energy Transfer cAMP Biosensor. <i>Molecular Pharmacology</i> , 2008, 74, 585-594.	1.0	135
82	Intracoronary Adenovirus-Mediated Delivery and Overexpression of the \hat{I}^2 α -Adrenergic Receptor in the Heart. <i>Circulation</i> , 2000, 101, 408-414.	1.6	133
83	Differential regulation of the \hat{I}^2 -adrenergic receptor by Na ⁺ and guanine nucleotides. <i>Nature</i> , 1980, 288, 709-711.	13.7	123
84	The Active Conformation of \hat{I}^2 -Arrestin1. <i>Journal of Biological Chemistry</i> , 2007, 282, 21370-21381.	1.6	121
85	Regulation of \hat{I}^2 -Adrenergic Receptor Function by Conformationally Selective Single-Domain Intrabodies. <i>Molecular Pharmacology</i> , 2014, 85, 472-481.	1.0	121
86	Allosteric β -blockerâ€isolated from a DNA-encoded small molecule library. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 1708-1713.	3.3	118
87	Pure \hat{I}^2 -adrenergic receptor: the single polypeptide confers catecholamine responsiveness to adenylate cyclase. <i>Nature</i> , 1983, 306, 562-566.	13.7	117
88	A role for Ni in the hormonal stimulation of adenylate cyclase. <i>Nature</i> , 1985, 318, 293-295.	13.7	107
89	Divergent Transducer-specific Molecular Efficacies Generate Biased Agonism at a G Protein-coupled Receptor (GPCR). <i>Journal of Biological Chemistry</i> , 2014, 289, 14211-14224.	1.6	105
90	ACTHâ€RECEPTOR INTERACTION IN THE ADRENAL: A MODEL FOR THE INITIAL STEP IN THE ACTION OF HORMONES THAT STIMULATE ADENYL CYCLASE. <i>Annals of the New York Academy of Sciences</i> , 1971, 185, 195-209.	1.8	104

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91	Turned on to ill effect. <i>Nature</i> , 1993, 365, 603-604.	13.7	101
92	β -Arrestin-2 regulates the development of allergic asthma. <i>Journal of Clinical Investigation</i> , 2003, 112, 566-574.	3.9	99
93	Chronic guanethidine treatment increases cardiac β -adrenergic receptors. <i>Nature</i> , 1978, 273, 240-242.	13.7	89
94	Phosphorylation of β -Arrestin2 Regulates Its Function in Internalization of β -Adrenergic Receptors. <i>Biochemistry</i> , 2002, 41, 10692-10699.	1.2	87
95	Augmentation of Cardiac Contractility Mediated by the Human β -Adrenergic Receptor Overexpressed in the Hearts of Transgenic Mice. <i>Circulation</i> , 2001, 104, 2485-2491.	1.6	85
96	β -Arrestin-mediated Signaling Regulates Protein Synthesis. <i>Journal of Biological Chemistry</i> , 2008, 283, 10611-10620.	1.6	84
97	Mechanism of β -AR regulation by an intracellular positive allosteric modulator. <i>Science</i> , 2019, 364, 1283-1287.	6.0	82
98	β -Arrestin Deficiency Protects Against Pulmonary Fibrosis in Mice and Prevents Fibroblast Invasion of Extracellular Matrix. <i>Science Translational Medicine</i> , 2011, 3, 74ra23.	5.8	81
99	Stable Interaction between β -Arrestin 2 and Angiotensin Type 1A Receptor Is Required for β -Arrestin 2-mediated Activation of Extracellular Signal-regulated Kinases 1 and 2. <i>Journal of Biological Chemistry</i> , 2004, 279, 48255-48261.	1.6	76
100	Small-Molecule Positive Allosteric Modulators of the β -Adrenoceptor Isolated from DNA-Encoded Libraries. <i>Molecular Pharmacology</i> , 2018, 94, 850-861.	1.0	66
101	Discovery of β Adrenergic Receptor Ligands Using Biosensor Fragment Screening of Tagged Wild-Type Receptor. <i>ACS Medicinal Chemistry Letters</i> , 2013, 4, 1005-1010.	1.3	65
102	Conformationally selective RNA aptamers allosterically modulate the β -adrenoceptor. <i>Nature Chemical Biology</i> , 2016, 12, 709-716.	3.9	65
103	β -Arrestin2 Couples Metabotropic Glutamate Receptor 5 to Neuronal Protein Synthesis and Is a Potential Target to Treat Fragile X. <i>Cell Reports</i> , 2017, 18, 2807-2814.	2.9	60
104	Sortase ligation enables homogeneous GPCR phosphorylation to reveal diversity in β -arrestin coupling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3834-3839.	3.3	57
105	Allosteric Modulation of β -Arrestin-biased Angiotensin II Type 1 Receptor Signaling by Membrane Stretch. <i>Journal of Biological Chemistry</i> , 2014, 289, 28271-28283.	1.6	55
106	Arrestins Come of Age. <i>Progress in Molecular Biology and Translational Science</i> , 2013, 118, 3-18.	0.9	50
107	Regulation of the β -adrenergic receptor and its mRNA in the rat ventral prostate by testosterone. <i>FEBS Letters</i> , 1988, 233, 173-176.	1.3	49
108	Palmitoylation Increases the Kinase Activity of the G Protein-Coupled Receptor Kinase, GRK6. <i>Biochemistry</i> , 1998, 37, 16053-16059.	1.2	48

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109	G protein-coupled receptor kinases (GRKs) orchestrate biased agonism at the β_2 -adrenergic receptor. <i>Science Signaling</i> , 2018, 11, .	1.6	47
110	GPCR-mediated β_2 -arrestin activation deconvoluted with single-molecule precision. <i>Cell</i> , 2022, 185, 1661-1675.e16.	13.5	43
111	Introduction to Special Section on β_2 -Arrestins. <i>Annual Review of Physiology</i> , 2007, 69, .	5.6	42
112	β -Actinin is a potent regulator of G protein-coupled receptor kinase activity and substrate specificity in vitro. <i>FEBS Letters</i> , 2000, 473, 280-284.	1.3	39
113	Detergent- and phospholipid-based reconstitution systems have differential effects on constitutive activity of G-protein-coupled receptors. <i>Journal of Biological Chemistry</i> , 2019, 294, 13218-13223.	1.6	38
114	β_2 -arrestin 1 regulates β_2 -adrenergic receptor-mediated skeletal muscle hypertrophy and contractility. <i>Skeletal Muscle</i> , 2018, 8, 39.	1.9	37
115	Molecular Mechanisms of Coupling in Hormone Receptor-Adenylate Cyclase Systems. <i>Advances in Enzymology and Related Areas of Molecular Biology</i> , 2006, 53, 1-43.	1.3	36
116	Myocardial G Protein-Coupled Receptor Kinases: Implications for Heart Failure Therapy. <i>Proceedings of the Association of American Physicians</i> , 1999, 111, 399-405.	2.1	35
117	Synthetic nanobodies as angiotensin receptor blockers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 20284-20291.	3.3	35
118	SnapShot: β_2 -Arrestin Functions. <i>Cell</i> , 2020, 182, 1362-1362.e1.	13.5	35
119	Altered airway and cardiac responses in mice lacking G protein-coupled receptor kinase 3. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1999, 276, R1214-R1221.	0.9	33
120	Temperature immutability of adenylyl cyclase-coupled β_2 adrenergic receptors. <i>Nature</i> , 1974, 249, 258-260.	13.7	31
121	Mechanisms involved in adrenergic receptor desensitization. <i>Biochemical Society Transactions</i> , 1990, 18, 541-544.	1.6	31
122	β_2 -Adrenoreceptors determine affinity but not intrinsic activity of adenylyl cyclase stimulants. <i>Nature</i> , 1979, 280, 502-504.	13.7	25
123	β_2 -Arrestin-Biased Allosteric Modulator Potentiates Carvedilol-Stimulated β_2 Adrenergic Receptor Cardioprotection. <i>Molecular Pharmacology</i> , 2021, 100, 568-579.	1.0	24
124	Variations on a theme. <i>Nature</i> , 1991, 351, 353-354.	13.7	22
125	Receptor regulation: β_2 -arrestin moves up a notch. <i>Nature Cell Biology</i> , 2005, 7, 1159-1161.	4.6	22
126	Signaling at the endosome: cryo-EM structure of a GPCR-G protein-beta-arrestin mega-complex. <i>FEBS Journal</i> , 2021, 288, 2562-2569.	2.2	22

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127	Allosteric activation of proto-oncogene kinase Src by GPCR β -arrestin complexes. <i>Journal of Biological Chemistry</i> , 2020, 295, 16773-16784.	1.6	21
128	GPCR signaling: conformational activation of arrestins. <i>Cell Research</i> , 2018, 28, 783-784.	5.7	20
129	Effect of pertussis toxin on β -adrenoceptors: decreased formation of the high-affinity state for agonists. <i>FEBS Letters</i> , 1984, 172, 95-98.	1.3	19
130	The β -arrestin-biased β -adrenergic receptor blocker carvedilol enhances skeletal muscle contractility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 12435-12443.	3.3	19
131	β -Arrestin β -Biased Angiotensin II Receptor Agonists for COVID-19. <i>Circulation</i> , 2020, 142, 318-320.	1.6	19
132	Unique Positive Cooperativity Between the β -Arrestin β -Biased β -Blocker Carvedilol and a Small Molecule Positive Allosteric Modulator of the β -2-Adrenergic Receptor. <i>Molecular Pharmacology</i> , 2021, 100, 513-525.	1.0	18
133	Comparison of specificity of agonist and antagonist radioligand binding to β adrenergic receptors. <i>Nature</i> , 1977, 268, 453-454.	13.7	17
134	The role of β -arrestin2-dependent signaling in thoracic aortic aneurysm formation in a murine model of Marfan syndrome. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H1516-H1527.	1.5	17
135	Cloning of the cDNA and Genes for the Hamster and Human β -2-Adrenergic Receptors. <i>Journal of Receptors and Signal Transduction</i> , 1988, 8, 7-21.	1.2	13
136	Identification of the Subunit Structure of Rat Pineal Adrenergic Receptors by Photoaffinity Labeling. <i>Journal of Neurochemistry</i> , 1986, 46, 1153-1160.	2.1	12
137	Translating science to medicine: The case for physician-scientists. <i>Science Translational Medicine</i> , 2022, 14, eabg7852.	5.8	11
138	Eine kurze Geschichte der G-Protein β -gekoppelten Rezeptoren (Nobel β -Aufsatz). <i>Angewandte Chemie</i> , 2013, 125, 6494-6507.	1.6	9
139	Beta-adrenergic receptors: Regulatory role of agonists. <i>Journal of Supramolecular Structure</i> , 1978, 8, 501-510.	2.3	7
140	Title is missing!. <i>Die Makromolekulare Chemie</i> , 1981, 182, 1945-1950.	1.1	7
141	The GPCR β -arrestin complex allosterically activates C-Raf by binding its amino terminus. <i>Journal of Biological Chemistry</i> , 2021, 297, 101369.	1.6	7
142	Dihydroergocryptine binding and β -adrenoreceptors in smooth muscle. <i>Nature</i> , 1980, 283, 109-110.	13.7	6
143	Costimulation of Adenylyl Cyclase and Phospholipase C by a Mutant β -1B-Adrenergic Receptor Transgene Promotes Malignant Transformation of Thyroid Follicular Cells. <i>Endocrinology</i> , 1997, 138, 369-378.	1.4	6
144	Summary of Wenner-Gren International Symposium Receptor-Receptor Interactions Among Heptaspanning Membrane Receptors: From Structure to Function. <i>Journal of Molecular Neuroscience</i> , 2005, 26, 293-294.	1.1	5

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145	Î²-Arrestin2 mediates progression of murine primary myelofibrosis. JCI Insight, 2017, 2, .	2.3	5
146	A Serendipitous Scientist. Annual Review of Pharmacology and Toxicology, 2018, 58, 17-32.	4.2	4
147	Molecular Mechanism of Biased Signaling in a Prototypical G-protein-coupled Receptor. Biophysical Journal, 2020, 118, 162a.	0.2	4
148	A tale of two callings. Journal of Clinical Investigation, 2011, 121, 4201-4203.	3.9	3
149	The annual ASCI meeting: does nostalgia have a future?. Journal of Clinical Investigation, 2008, 118, 1231-1233.	3.9	2
150	Conformational Changes in Î²-Arrestin1: The Importance of Î²-Arrestin1's N-Terminal Domain. FASEB Journal, 2006, 20, A114.	0.2	0
151	[beta]-Arrestin 1 mediates angiotensin II induced ubiquitination and down-regulation of TRPV4. FASEB Journal, 2009, 23, 944.3.	0.2	0
152	Crystal structure of active Beta-Arrestin1 bound to phosphorylated carboxy-terminus of a G protein-coupled receptor. FASEB Journal, 2013, 27, lb549.	0.2	0
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