

Arun Kumar Shukla

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8574858/publications.pdf>

Version: 2024-02-01

97
papers

7,152
citations

109321

35
h-index

60623

81
g-index

129
all docs

129
docs citations

129
times ranked

6128
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Mechanism of β^2 -Arrestin-Biased Agonism at Seven-Transmembrane Receptors. Annual Review of Pharmacology and Toxicology, 2012, 52, 179-197.	9.4	536
2	Distinct Phosphorylation Sites on the β^2 -Adrenergic Receptor Establish a Barcode That Encodes Differential Functions of β^2 -Arrestin. Science Signaling, 2011, 4, ra51.	3.6	535
3	GPCR-G Protein- β^2 -Arrestin Super-Complex Mediates Sustained G Protein Signaling. Cell, 2016, 166, 907-919.	28.9	443
4	Visualization of arrestin recruitment by a G-protein-coupled receptor. Nature, 2014, 512, 218-222.	27.8	433
5	Structure of active β^2 -arrestin-1 bound to a G-protein-coupled receptor phosphopeptide. Nature, 2013, 497, 137-141.	27.8	393
6	Emerging paradigms of β^2 -arrestin-dependent seven transmembrane receptor signaling. Trends in Biochemical Sciences, 2011, 36, 457-469.	7.5	380
7	Functional specialization of β^2 -arrestin interactions revealed by proteomic analysis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12011-12016.	7.1	371
8	Distinct conformations of GPCR- β^2 -arrestin complexes mediate desensitization, signaling, and endocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2562-2567.	7.1	281
9	Multiple ligand-specific conformations of the β^2 -adrenergic receptor. Nature Chemical Biology, 2011, 7, 692-700.	8.0	229
10	Distinct conformational changes in β^2 -arrestin report biased agonism at seven-transmembrane receptors. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9988-9993.	7.1	226
11	β^2 -Arrestin1 mediates nicotinic acid-induced flushing, but not its antilipolytic effect, in mice. Journal of Clinical Investigation, 2009, 119, 1312-1321.	8.2	203
12	Global phosphorylation analysis of β^2 -arrestin-mediated signaling downstream of a seven transmembrane receptor (7TMR). Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15299-15304.	7.1	182
13	Molecular basis of β^2 -arrestin coupling to formoterol-bound β^2 -adrenoceptor. Nature, 2020, 583, 862-866.	27.8	177
14	Methodological advances: the unsung heroes of the GPCR structural revolution. Nature Reviews Molecular Cell Biology, 2015, 16, 69-81.	37.0	175
15	β^2 -Arrestin-dependent signaling and trafficking of 7-transmembrane receptors is reciprocally regulated by the deubiquitinase USP33 and the E3 ligase Mdm2. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6650-6655.	7.1	146
16	Functional competence of a partially engaged GPCR- β^2 -arrestin complex. Nature Communications, 2016, 7, 13416.	12.8	144
17	β^2 -Arrestin-dependent activation of Ca ²⁺ /calmodulin kinase II after β^2 -adrenergic receptor stimulation. Journal of Cell Biology, 2010, 189, 573-587.	5.2	142
18	Emerging Functional Divergence of β^2 -Arrestin Isoforms in GPCR Function. Trends in Endocrinology and Metabolism, 2015, 26, 628-642.	7.1	124

#	ARTICLE	IF	CITATIONS
19	Ubiquitination of β -Arrestin Links Seven-transmembrane Receptor Endocytosis and ERK Activation. <i>Journal of Biological Chemistry</i> , 2007, 282, 29549-29562.	3.4	121
20	Emerging structural insights into biased GPCR signaling. <i>Trends in Biochemical Sciences</i> , 2014, 39, 594-602.	7.5	97
21	Arresting a Transient Receptor Potential (TRP) Channel. <i>Journal of Biological Chemistry</i> , 2010, 285, 30115-30125.	3.4	92
22	Novel Structural Insights into GPCR β -Arrestin Interaction and Signaling. <i>Trends in Cell Biology</i> , 2017, 27, 851-862.	7.9	90
23	Core engagement with β -arrestin is dispensable for agonist-induced vasopressin receptor endocytosis and ERK activation. <i>Molecular Biology of the Cell</i> , 2017, 28, 1003-1010.	2.1	87
24	Molecular mechanism of modulating arrestin conformation by GPCR phosphorylation. <i>Nature Structural and Molecular Biology</i> , 2018, 25, 538-545.	8.2	87
25	The Structure of the Neuropeptide Bradykinin Bound to the Human β -Protein Coupled Receptor Bradykinin B2 as Determined by Solid-State NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 1668-1671.	13.8	86
26	Community guidelines for GPCR ligand bias: IUPHAR review 32. <i>British Journal of Pharmacology</i> , 2022, 179, 3651-3674.	5.4	84
27	Intrinsic bias at non-canonical, β -arrestin-coupled seven transmembrane receptors. <i>Molecular Cell</i> , 2021, 81, 4605-4621.e11.	9.7	69
28	Emerging Approaches to GPCR Ligand Screening for Drug Discovery. <i>Trends in Molecular Medicine</i> , 2015, 21, 687-701.	6.7	68
29	Discovery of β 2 Adrenergic Receptor Ligands Using Biosensor Fragment Screening of Tagged Wild-Type Receptor. <i>ACS Medicinal Chemistry Letters</i> , 2013, 4, 1005-1010.	2.8	65
30	Biased ligands at opioid receptors: Current status and future directions. <i>Science Signaling</i> , 2021, 14, .	3.6	58
31	Emerging Insights into the Structure and Function of Complement C5a Receptors. <i>Trends in Biochemical Sciences</i> , 2020, 45, 693-705.	7.5	57
32	Distinct phosphorylation sites in a prototypical GPCR differently orchestrate β -arrestin interaction, trafficking, and signaling. <i>Science Advances</i> , 2020, 6, .	10.3	55
33	Conformational Sensors and Domain Swapping Reveal Structural and Functional Differences between β -Arrestin Isoforms. <i>Cell Reports</i> , 2019, 28, 3287-3299.e6.	6.4	54
34	Illuminating GPCR Signaling by Cryo-EM. <i>Trends in Cell Biology</i> , 2018, 28, 591-594.	7.9	49
35	Key phosphorylation sites in β -GPCR s orchestrate the contribution of β -Arrestin 1 in β -ERK 1/2 activation. <i>EMBO Reports</i> , 2020, 21, e49886.	4.5	48
36	The Complement C5a-C5aR1 GPCR Axis in COVID-19 Therapeutics. <i>Trends in Immunology</i> , 2020, 41, 965-967.	6.8	44

#	ARTICLE	IF	CITATIONS
37	A synthetic intrabody-based selective and generic inhibitor of GPCR endocytosis. <i>Nature Nanotechnology</i> , 2017, 12, 1190-1198.	31.5	42
38	Biasing GPCR Signaling from Inside. <i>Science Signaling</i> , 2014, 7, pe3.	3.6	39
39	Crystal Structure of β -Arrestin 2 in Complex with CXCR7 Phosphopeptide. <i>Structure</i> , 2020, 28, 1014-1023.e4.	3.3	38
40	Crystallizing Thinking about the β 2-Adrenergic Receptor. <i>Molecular Pharmacology</i> , 2008, 73, 1333-1338.	2.3	35
41	Emerging Paradigm of Intracellular Targeting of G Protein-Coupled Receptors. <i>Trends in Biochemical Sciences</i> , 2018, 43, 533-546.	7.5	34
42	Partial ligand-receptor engagement yields functional bias at the human complement receptor, C5aR1. <i>Journal of Biological Chemistry</i> , 2019, 294, 9416-9429.	3.4	34
43	GPCR Signaling: β -arrestins Kiss and Remember. <i>Current Biology</i> , 2016, 26, R285-R288.	3.9	29
44	Genetically encoded intrabody sensors report the interaction and trafficking of β -arrestin 1 upon activation of G-protein-coupled receptors. <i>Journal of Biological Chemistry</i> , 2020, 295, 10153-10167.	3.4	29
45	Measuring surface expression and endocytosis of GPCRs using whole-cell ELISA. <i>Methods in Cell Biology</i> , 2019, 149, 131-140.	1.1	28
46	A crystal clear view of the β 2-adrenergic receptor. <i>Nature Biotechnology</i> , 2008, 26, 189-191.	17.5	26
47	Emerging structural insights into GPCR- β -arrestin interaction and functional outcomes. <i>Current Opinion in Structural Biology</i> , 2022, 75, 102406.	5.7	25
48	Heterologous expression and comparative characterization of the human neuromedin U subtype II receptor using the methylotrophic yeast <i>Pichia pastoris</i> and mammalian cells. <i>International Journal of Biochemistry and Cell Biology</i> , 2007, 39, 931-942.	2.8	22
49	Biphasic activation of β -arrestin 1 upon interaction with a GPCR revealed by methyl-TROSY NMR. <i>Nature Communications</i> , 2021, 12, 7158.	12.8	22
50	Employing <i>Rhodobacter sphaeroides</i> to functionally express and purify human G protein-coupled receptors. <i>Biological Chemistry</i> , 2008, 389, 69-78.	2.5	21
51	Terminating G-Protein Coupling: Structural Snapshots of GPCR- β -Arrestin Complexes. <i>Cell</i> , 2020, 180, 1041-1043.	28.9	21
52	Dimethylsulphoxide as a tool to increase functional expression of heterologously produced GPCRs in mammalian cells. <i>FEBS Letters</i> , 2006, 580, 4261-4265.	2.8	20
53	Biochemical and pharmacological characterization of the human bradykinin subtype 2 receptor produced in mammalian cells using the Semliki Forest virus system. <i>Biological Chemistry</i> , 2006, 387, 569-76.	2.5	18
54	Comparative analysis of the human angiotensin II type 1a receptor heterologously produced in insect cells and mammalian cells. <i>Biochemical and Biophysical Research Communications</i> , 2006, 349, 6-14.	2.1	17

#	ARTICLE	IF	CITATIONS
55	Heterologous expression and characterization of the recombinant bradykinin B2 receptor using the methylotrophic yeast <i>Pichia pastoris</i> . <i>Protein Expression and Purification</i> , 2007, 55, 1-8.	1.3	17
56	Functional overexpression and characterization of human bradykinin subtype 2 receptor in insect cells using the baculovirus system. <i>Journal of Cellular Biochemistry</i> , 2006, 99, 868-877.	2.6	16
57	GPCR Signaling: The Interplay of G α i and β -arrestin. <i>Current Biology</i> , 2018, 28, R324-R327.	3.9	16
58	SnapShot: GPCR-Ligand Interactions. <i>Cell</i> , 2014, 159, 1712-1712.e1.	28.9	15
59	Biased Opioid Receptor Ligands: Gain without Pain. <i>Trends in Endocrinology and Metabolism</i> , 2017, 28, 247-249.	7.1	13
60	Structure and function of β -arrestins, their emerging role in breast cancer, and potential opportunities for therapeutic manipulation. <i>Advances in Cancer Research</i> , 2020, 145, 139-156.	5.0	13
61	Structural insights into ligand recognition and activation of angiotensin receptors. <i>Trends in Pharmacological Sciences</i> , 2021, 42, 577-587.	8.7	12
62	Rec A-independent homologous recombination induced by a putative fold-back tetraplex DNA. <i>Biological Chemistry</i> , 2006, 387, 251-256.	2.5	10
63	Antibody Fragments for Stabilization and Crystallization of G Protein-Coupled Receptors and Their Signaling Complexes. <i>Methods in Enzymology</i> , 2015, 557, 247-258.	1.0	10
64	Frozen in action: cryo-EM structure of a GPCR-G-protein complex. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 500-502.	8.2	10
65	Measuring agonist-induced ERK MAP kinase phosphorylation for G-protein-coupled receptors. <i>Methods in Cell Biology</i> , 2019, 149, 141-153.	1.1	10
66	An intrabody sensor to monitor conformational activation of β -arrestins. <i>Methods in Cell Biology</i> , 2022, , 267-278.	1.1	10
67	Entering the Pocket: Crystal Structure of a Prostaglandin D2 Receptor. <i>Molecular Cell</i> , 2018, 72, 3-6.	9.7	7
68	Purification of native CCL7 and its functional interaction with selected chemokine receptors. <i>Protein Expression and Purification</i> , 2020, 171, 105617.	1.3	6
69	From Recombinant Expression to Crystals. <i>Methods in Enzymology</i> , 2015, 556, 549-561.	1.0	5
70	The Gut Feeling: GPCRs Enlighten the Way. <i>Cell Host and Microbe</i> , 2019, 26, 160-162.	11.0	5
71	Structural Basis of Partial Agonism at the β 2-Adrenergic Receptor. <i>Biochemistry</i> , 2019, 58, 137-139.	2.5	5
72	The Inside Story: Crystal Structure of the Chemokine Receptor CCR7 with an Intracellular Allosteric Antagonist. <i>Biochemistry</i> , 2020, 59, 12-14.	2.5	5

#	ARTICLE	IF	CITATIONS
73	In-cellulo chemical cross-linking to visualize protein-protein interactions. <i>Methods in Cell Biology</i> , 2022, , 295-307.	1.1	5
74	Transmitting the Signal: Structure of the β 2-Adrenergic Receptor-Gs Protein Complex. <i>Molecular Cell</i> , 2020, 80, 3-5.	9.7	4
75	A Palindromic Repeat Sequence Adopts a Stable Fold Back Structure under Supercoiling. <i>Journal of Biochemistry</i> , 2006, 139, 35-39.	1.7	3
76	Emerging paradigms in activation, signaling, and regulation of G protein-coupled receptors. <i>FEBS Journal</i> , 2021, 288, 2458-2460.	4.7	3
77	India " stop looking down on international collaborations. <i>Nature</i> , 2021, 600, 361-361.	27.8	3
78	Site-directed labeling of β 2-arrestin with monobromobimane for measuring their interaction with G protein-coupled receptors. <i>Methods in Enzymology</i> , 2020, 633, 271-280.	1.0	2
79	Calcium as a biased cofactor. <i>Science</i> , 2020, 368, 369-370.	12.6	2
80	Editorial overview: Multi-protein assemblies in signaling. <i>Current Opinion in Structural Biology</i> , 2016, 41, v-vii.	5.7	1
81	G Protein-Coupled Receptors (GPCRs). <i>International Journal of Biochemistry and Cell Biology</i> , 2016, 77, 183.	2.8	1
82	Cellular Signalling " Special issue to celebrate 75th birthday of Prof. Robert J. Lefkowitz. <i>Cellular Signalling</i> , 2018, 41, 1.	3.6	1
83	Reversible biotinylation of purified proteins for measuring protein-protein interactions. <i>Methods in Enzymology</i> , 2020, 633, 281-294.	1.0	1
84	Preface. <i>European Journal of Pharmacology</i> , 2015, 763, 135.	3.5	0
85	Preface. <i>Methods in Enzymology</i> , 2015, 556, xxiii-xxiv.	1.0	0
86	Preface. <i>Advances in Immunology</i> , 2017, 136, xi-xii.	2.2	0
87	Preface. <i>Methods in Enzymology</i> , 2019, 621, xvii.	1.0	0
88	Preface. <i>Methods in Enzymology</i> , 2019, 622, xvii.	1.0	0
89	Preface. <i>Methods in Cell Biology</i> , 2019, 149, xvii.	1.1	0
90	Preface. <i>Methods in Enzymology</i> , 2020, 633, xiii.	1.0	0

#	ARTICLE	IF	CITATIONS
91	Feeling at home: Structure of the NTSR1â€“Gi complex in a lipid environment. Nature Structural and Molecular Biology, 2021, 28, 331-333.	8.2	0
92	Î² ₁ -Arrestinâ€“dependent activation of Ca ²⁺ /calmodulin kinase II after Î² ₁ -adrenergic receptor stimulation. Journal of General Physiology, 2010, 135, i5-i5.	1.9	0
93	Crystal structure of active Betaâ€“arrestin1 bound to phosphorylated carboxyâ€“terminus of a G proteinâ€“coupled receptor. FASEB Journal, 2013, 27, lb549.	0.5	0
94	Preface. Methods in Cell Biology, 2021, 166, xvii.	1.1	0
95	Scratching the itch with cryo-EM. Nature Chemical Biology, 2022, , .	8.0	0
96	Making the switch: The role of Gq in driving GRK selectivity at GPCRs. Science Signaling, 2022, 15, eabo4949.	3.6	0
97	Targeting the cell's gatekeepers for novel drug discovery. British Journal of Pharmacology, 2022, , .	5.4	0