Xavier Deupi

List of Publications by Citations

75 papers	5,714 citations	37 h-index	75 g-index
85 ext. papers	6,472 ext. citations	9.9 avg, IF	5.72 L-index

#	Paper	IF	Citations
75	Molecular signatures of G-protein-coupled receptors. *Nature*, **2013**, 494, 185-94	50.4	1071
74	Conformational complexity of G-protein-coupled receptors. *Trends in Pharmacological Sciences*, **2007**, 28, 397-406	13.2	578
73	Coupling ligand structure to specific conformational switches in the beta2-adrenoceptor **2006**, 2, 417-22		280
72	Tracking G-protein-coupled receptor activation using genetically encoded infrared probes. *Nature*, **2010**, 464, 1386-9	50.4	220
71	Probing the beta2 adrenoceptor binding site with catechol reveals differences in binding and activation by agonists and partial agonists. *Journal of Biological Chemistry*, **2005**, 280, 22165-71	5.4	216
70	Energy landscapes as a tool to integrate GPCR structure, dynamics, and function. *Physiology*, **2010**, 25, 293-303	9.8	194
69	Stabilized G protein binding site in the structure of constitutively active metarhodopsin-II. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 119-24	11.5	193
68	The effect of ligand efficacy on the formation and stability of a GPCR-G protein complex. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 9501-6	11.5	186
67	Diverse activation pathways in class A GPCRs converge near the G-protein-coupling region. *Nature*, **2016**, 536, 484-7	50.4	184
66	Structural insights into agonist-induced activation of G-protein-coupled receptors. *Current Opinion in Structural Biology*, **2011**, 21, 541-51	8.1	180
65	Ligand-regulated oligomerization of beta(2)-adrenoceptors in a model lipid bilayer. *EMBO Journal*, **2009**, 28, 3315-28	13	157
64	Serine and threonine residues bend alpha-helices in the chi(1) = g(-) conformation. *Biophysical Journal*, **2000**, 79, 2754-60	2.9	157
63	Structural insights into biased G protein-coupled receptor signaling revealed by fluorescence spectroscopy. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 6733-8	11.5	151
62	The role of internal water molecules in the structure and function of the rhodopsin family of G protein-coupled receptors. *ChemBioChem*, **2007**, 8, 19-24	3.8	111
61	The TXP motif in the second transmembrane helix of CCR5. A structural determinant of chemokine-induced activation. *Journal of Biological Chemistry*, **2001**, 276, 13217-25	5.4	111
60	Backbone NMR reveals allosteric signal transduction networks in the 1-adrenergic receptor. *Nature*, **2016**, 530, 237-41	50.4	110
59	An activation switch in the rhodopsin family of G protein-coupled receptors: the thyrotropin receptor. *Journal of Biological Chemistry*, **2005**, 280, 17135-41	5.4	88

58	Ser and Thr residues modulate the conformation of pro-kinked transmembrane alpha-helices. *Biophysical Journal*, **2004**, 86, 105-15	2.9	83
57	Activation of CCR5 by chemokines involves an aromatic cluster between transmembrane helices 2 and 3. *Journal of Biological Chemistry*, **2003**, 278, 1892-903	5.4	80
56	Insights into congenital stationary night blindness based on the structure of G90D rhodopsin. *EMBO Reports*, **2013**, 14, 520-6	6.5	72
55	An online resource for GPCR structure determination and analysis. *Nature Methods*, **2019**, 16, 151-162	21.6	71
54	Molecular basis of ligand dissociation in adrenergic receptors. *PLoS ONE*, **2011**, 6, e23815	3.7	70
53	Activation of G protein-coupled receptors. *Advances in Protein Chemistry*, **2007**, 74, 137-66		61
52	Relation between sequence and structure in membrane proteins. *Bioinformatics*, **2013**, 29, 1589-92	7.2	59
51	SAS-6 engineering reveals interdependence between cartwheel and microtubules in determining centriole architecture. *Nature Cell Biology*, **2016**, 18, 393-403	23.4	55
50	A structural insight into the reorientation of transmembrane domains 3 and 5 during family A G protein-coupled receptor activation. *Molecular Pharmacology*, **2011**, 79, 262-9	4.3	53
49	Distinct G protein-coupled receptor phosphorylation motifs modulate arrestin affinity and activation and global conformation. *Nature Communications*, **2019**, 10, 1261	17.4	52
48	Coronin 1 regulates cognition and behavior through modulation of cAMP/protein kinase A signaling. *PLoS Biology*, **2014**, 12, e1001820	9.7	52
47	Femtosecond-to-millisecond structural changes in a light-driven sodium pump. *Nature*, **2020**, 583, 314-318	50.4	48
46	Functional map of arrestin-1 at single amino acid resolution. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 1825-30	11.5	48
45	Design, synthesis and pharmacological evaluation of 5-hydroxytryptamine(1a) receptor ligands to explore the three-dimensional structure of the receptor. *Molecular Pharmacology*, **2002**, 62, 15-21	4.3	47
44	A Molecular Pharmacologist's Guide to G Protein-Coupled Receptor Crystallography. *Molecular Pharmacology*, **2015**, 88, 536-51	4.3	45
43	Probing G protein activation at single-amino acid resolution. *Nature Structural and Molecular Biology*, **2015**, 22, 686-694	17.6	42
42	Relevance of rhodopsin studies for GPCR activation. *Biochimica Et Biophysica Acta - Bioenergetics*, **2014**, 1837, 674-82	4.6	41
41	Structural models of class a G protein-coupled receptors as a tool for drug design: insights on transmembrane bundle plasticity. *Current Topics in Medicinal Chemistry*, **2007**, 7, 991-8	3	41

40	Conserved activation pathways in G-protein-coupled receptors. *Biochemical Society Transactions*, **2012**, 40, 383-8	5.1	40
39	Structural and functional characterization of alternative transmembrane domain conformations in VEGF receptor 2 activation. *Structure*, **2014**, 22, 1077-1089	5.2	38
38	Crystal structure of rhodopsin in complex with a mini-G sheds light on the principles of G protein selectivity. *Science Advances*, **2018**, 4, eaat7052	14.3	37
37	GPCRmd uncovers the dynamics of the 3D-GPCRome. *Nature Methods*, **2020**, 17, 777-787	21.6	34
36	Conformational activation of visual rhodopsin in native disc membranes. *Science Signaling*, **2015**, 8, ra26	8.8	29
35	Influence of the environment in the conformation of alpha-helices studied by protein database search and molecular dynamics simulations. *Biophysical Journal*, **2002**, 82, 3207-13	2.9	29
34	Cryo-EM structure of the rhodopsin-G□□complex reveals binding of the rhodopsin C-terminal tail to the g□subunit. *ELife*, **2019**, 8,	8.9	29
33	The activation mechanism of chemokine receptor CCR5 involves common structural changes but a different network of interhelical interactions relative to rhodopsin. *Cellular Signalling*, **2007**, 19, 1446-56	4.9	26
32	Structural role of the T94I rhodopsin mutation in congenital stationary night blindness. *EMBO Reports*, **2016**, 17, 1431-1440	6.5	25
31	Influence of the g- conformation of Ser and Thr on the structure of transmembrane helices. *Journal of Structural Biology*, **2010**, 169, 116-23	3.4	24
30	Crystal structure of jumping spider rhodopsin-1 as a light sensitive GPCR. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 14547-14556	11.5	20
29	The counterion-retinylidene Schiff base interaction of an invertebrate rhodopsin rearranges upon light activation. *Communications Biology*, **2019**, 2, 180	6.7	14
28	The Two-Photon Reversible Reaction of the Bistable Jumping Spider Rhodopsin-1. *Biophysical Journal*, **2019**, 116, 1248-1258	2.9	11
27	The DRF motif of CXCR6 as chemokine receptor adaptation to adhesion. *PLoS ONE*, **2017**, 12, e0173486	3.7	11
26	Batch crystallization of rhodopsin for structural dynamics using an X-ray free-electron laser. *Acta Crystallographica Section F, Structural Biology Communications*, **2015**, 71, 856-60	1.1	11
25	Triazolo-Peptidomimetics: Novel Radiolabeled Minigastrin Analogs for Improved Tumor Targeting. *Journal of Medicinal Chemistry*, **2020**, 63, 4484-4495	8.3	10
24	Molecular dynamics: A stitch in time. *Nature Chemistry*, **2014**, 6, 7-8	17.6	10
23	Convergent evolution of tertiary structure in rhodopsin visual proteins from vertebrates and box jellyfish. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 6201-6206	11.5	10

22	Characterization of a conformationally sensitive TOAC spin-labeled substance P. *Peptides*, **2008**, 29, 1919-89	3.8	9
21	Quantification of structural distortions in the transmembrane helices of GPCRs. *Methods in Molecular Biology*, **2012**, 914, 219-35	1.4	8
20	Selective hydrolysis of 2,4-diaminopyrimidine systems: a theoretical and experimental insight into an old rule. *Journal of Organic Chemistry*, **2001**, 66, 192-9	4.2	8
19	Structural basis of the activation of the CC chemokine receptor 5 by a chemokine agonist. *Science Advances*, **2021**, 7,	14.3	8
18	Elucidating the Structure-Activity Relationship of the Pentaglutamic Acid Sequence of Minigastrin with Cholecystokinin Receptor Subtype 2. *Bioconjugate Chemistry*, **2019**, 30, 657-666	6.3	8
17	Structure of β-adrenergic receptors. *Methods in Enzymology*, **2013**, 520, 117-51	1.7	7
16	Charge-charge and cation-π interactions in ligand binding to G protein-coupled receptors. *Theoretical Chemistry Accounts*, **2007**, 118, 579-588	1.9	7
15	GPCR-SAS: A web application for statistical analyses on G protein-coupled receptors sequences. *PLoS ONE*, **2018**, 13, e0199843	3.7	6
14	An experimental strategy to probe Gq contribution to signal transduction in living cells. *Journal of Biological Chemistry*, **2021**, 296, 100472	5.4	6
13	Arrestin-1 engineering facilitates complex stabilization with native rhodopsin. *Scientific Reports*, **2019**, 9, 439	4.9	5
12	Ligands stabilize specific GPCR conformations: but how?. *Structure*, **2012**, 20, 1289-90	5.2	5
11	TMalphaDB and TMbetaDB: web servers to study the structural role of sequence motifs in α-helix and β-barrel domains of membrane proteins. *BMC Bioinformatics*, **2015**, 16, 266	3.6	4
10	High-mass MALDI-MS unravels ligand-mediated G protein-coupling selectivity to GPCRs. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	2
9	Identification of Key Regions Mediating Human Melatonin Type 1 Receptor Functional Selectivity Revealed by Natural Variants. *ACS Pharmacology and Translational Science*, **2021**, 4, 1614-1627	5.9	2
8	Chimeric single α-helical domains as rigid fusion protein connections for protein nanotechnology and structural biology. *Structure*, **2021**,	5.2	2
7	3-D Structure of G Protein-coupled Receptors. *Methods and Principles in Medicinal Chemistry*, **2006**, 183-203	2.4	1
6	Structural Elements Directing G Proteins and β-Arrestin Interactions with the Human Melatonin Type 2 Receptor Revealed by Natural Variants. *ACS Pharmacology and Translational Science*, **2022**, 5, 89-101	5.9	1
5	Conformational Plasticity of GPCR Binding Sites **2005**, 363-388		1

4	Structural basis of the activation of the CC chemokine receptor 5 by a chemokine agonist		1
3	Unraveling binding mechanism and kinetics of macrocyclic G protein inhibitors. *Pharmacological Research*, **2021**, 173, 105880	10.2	1
2	Distance-Dependent Cellular Uptake of Oligoproline-Based Homobivalent Ligands Targeting GPCRs-An Experimental and Computational Analysis. *Bioconjugate Chemistry*, **2020**, 31, 2431-2438	6.3	0
1	Structural Insights for Homology Modeling of Chemokine Receptors. *Methods and Principles in Medicinal Chemistry*, **2011**, 33-50	0.4	