Christian Siebold

List of Publications by Year
in descending order

79 papers	6,765 citations	57631 44 h-index	71532 76 g-index
93 all docs	93 docs citations	93 times ranked	10047 citing authors

#	Article	IF	Citations
1	Patched 1 regulates Smoothened by controlling sterol binding to its extracellular cysteine-rich domain. Science Advances, 2022, 8, .	4.7	19
2	The Energetics of Cholesterol Transport through Patched1: MD Simulations and Free Energy Calculations. Biophysical Journal, 2021, 120, 72a.	0.2	0
3	Simultaneous binding of Guidance Cues NET1 and RGM blocks extracellular NEO1 signaling. Cell, 2021, 184, 2103-2120.e31.	13.5	20
4	Photochemical Probe Identification of a Smallâ€Molecule Inhibitor Binding Site in Hedgehog Acyltransferase (HHAT)**. Angewandte Chemie, 2021, 133, 13654-13659.	1.6	0
5	Photochemical Probe Identification of a Smallâ€Molecule Inhibitor Binding Site in Hedgehog Acyltransferase (HHAT)**. Angewandte Chemie - International Edition, 2021, 60, 13542-13547.	7.2	18
6	Relative Affinities of Proteinâ€“Cholesterol Interactions from Equilibrium Molecular Dynamics Simulations. Journal of Chemical Theory and Computation, 2021, 17, 6548-6558.	2.3	21
7	Patched 1 reduces the accessibility of cholesterol in the outer leaflet of membranes. ELife, 2021, 10, .	2.8	34
8	Hedgehog-Interacting Protein is a multimodal antagonist of Hedgehog signalling. Nature Communications, 2021, 12, 7171.	5.8	16
9	Structure, mechanism, and inhibition of Hedgehog acyltransferase. Molecular Cell, 2021, 81, 5025-5038.e10.	4.5	28
10	Glypicans shield the Wnt lipid moiety to enable signalling at a distance. Nature, 2020, 585, 85-90.	13.7	90
11	Cholesterol access in cellular membranes controls Hedgehog signaling. Nature Chemical Biology, 2020, 16, 1303-1313.	3.9	90
12	Repulsive guidance molecules lock growth differentiation factor 5 in an inhibitory complex. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15620-15631.	3.3	18
13	R-spondins engage heparan sulfate proteoglycans to potentiate WNT signaling. ELife, 2020, 9, .	2.8	37
14	Diversity of oligomerization in Drosophila semaphorins suggests a mechanism of functional fine-tuning. Nature Communications, 2019, 10, 3691.	5.8	10
15	Acylation-coupled lipophilic induction of polarisation (Acyl-cLIP): a universal assay for lipid transferase and hydrolase enzymes. Chemical Science, 2019, 10, 8995-9000.	3.7	27
16	The morphogen Sonic hedgehog inhibits its receptor Patched by a pincer grasp mechanism. Nature Chemical Biology, 2019, 15, 975-982.	3.9	52
17	Structures of vertebrate Patched and Smoothened reveal intimate links between cholesterol and Hedgehog signalling. Current Opinion in Structural Biology, 2019, 57, 204-214.	2.6	44
18	Biochemical mechanisms of vertebrate hedgehog signaling. Development (Cambridge), 2019, 146, .	1.2	179

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19	Cholesterol Interaction Sites on the Transmembrane Domain of the Hedgehog Signal Transducer and Class F G Protein-Coupled Receptor Smoothened. Structure, 2019, 27, 549-559.e2.	1.6	77
20	iASPP mediates p53 selectivity through a modular mechanism fine-tuning DNA recognition. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17470-17479.	3.3	20
21	Cholesterol accessibility at the ciliary membrane controls hedgehog signaling. ELife, 2019, 8, .	2.8	97
22	A calcium-sensing receptor mutation causing hypocalcemia disrupts a transmembrane salt bridge to activate Î²-arrestinâ€“biased signaling. Science Signaling, 2018, 11, .	1.6	32
23	Multiple ligand binding sites regulate the Hedgehog signal transducer Smoothened in vertebrates. Current Opinion in Cell Biology, 2018, 51, 81-88.	2.6	52
24	Lentiviral transduction of mammalian cells for fast, scalable and high-level production of soluble and membrane proteins. Nature Protocols, 2018, 13, 2991-3017.	5.5	131
25	Cilia-Associated Oxysterols Activate Smoothened. Molecular Cell, 2018, 72, 316-327.e5.	4.5	100
26	Calcium-sensing receptor residues with loss- and gain-of-function mutations are located in regions of conformational change and cause signalling bias. Human Molecular Genetics, 2018, 27, 3720-3733.	1.4	23
27	Calibration-free In Vitro Quantification of Protein Homo-oligomerization Using Commercial Instrumentation and Free, Open Source Brightness Analysis Software. Journal of Visualized Experiments, 2018, , .	0.2	2
28	RGMs: Structural Insights, Molecular Regulation, and Downstream Signaling. Trends in Cell Biology, 2017, 27, 365-378.	3.6	83
29	Structural basis of Smoothened regulation by its extracellular domains. Nature, 2016, 535, 517-522.	13.7	300
30	Structural basis for integration of GluD receptors within synaptic organizer complexes. Science, 2016, 353, 295-299.	6.0	128
31	Initiation of T cell signaling by CD45 segregation at 'close contacts'. Nature Immunology, 2016, 17, 574-582.	7.0	253
32	Cholesterol activates the G-protein coupled receptor Smoothened to promote Hedgehog signaling. ELife, 2016, 5, .	2.8	188
33	Repulsive guidance molecule is a structural bridge between neogenin and bone morphogenetic protein. Nature Structural and Molecular Biology, 2015, 22, 458-465.	3.6	78
34	Secreted HHIP1 interacts with heparan sulfate and regulates Hedgehog ligand localization and function. Journal of Cell Biology, 2015, 209, 739-758.	2.3	39
35	Lrig2 Negatively Regulates Ectodomain Shedding of Axon Guidance Receptors by ADAM Proteases. Developmental Cell, 2015, 35, 537-552.	3.1	46
36	Secreted HHIP1 interacts with heparan sulfate and regulates Hedgehog ligand localization and function. Journal of Experimental Medicine, 2015, 212, 2127OIA55.	4.2	0

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37	Structural insights into semaphorins and their receptors. Seminars in Cell and Developmental Biology, 2013, 24, 139-145.	2.3	62
38	Neuropilins Lock Secreted Semaphorins onto Plexins in a Ternary Signalling Complex. Biophysical Journal, 2013, 104, 613a.	0.2	0
39	Restoring p53 Function in Human Melanoma Cells by Inhibiting MDM2 and Cyclin B1/CDK1-Phosphorylated Nuclear iASPP. Cancer Cell, 2013, 23, 618-633.	7.7	136
40	Structure of the Repulsive Guidance Molecule (RGM)â€“Neogenin Signaling Hub. Science, 2013, 341, 77-80.	6.0	52
41	Structural insights into proteoglycan-shaped Hedgehog signaling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16420-16425.	3.3	79
42	Structure and function of the Smoothened extracellular domain in vertebrate Hedgehog signaling. ELife, 2013, 2, e01340.	2.8	140
43	Neuropilins lock secreted semaphorins onto plexins in a ternary signaling complex. Nature Structural and Molecular Biology, 2012, 19, 1293-1299.	3.6	160
44	Modular Mechanism of Wnt Signalling Inhibition by Wnt Inhibitory Factor 1. Biophysical Journal, 2012, 102, 518a.	0.2	0
45	Modular mechanism of Wnt signaling inhibition by Wnt inhibitory factor 1. Nature Structural and Molecular Biology, 2011, 18, 886-893.	3.6	135
46	Proteoglycan-Specific Molecular Switch for RPTPÏƒ Clustering and Neuronal Extension. Science, 2011, 332, 484-488.	6.0	294
47	Structural and Functional Studies of LRP6 Ectodomain Reveal a Platform for Wnt Signaling. Developmental Cell, 2011, 21, 848-861.	3.1	109
48	Automation of large scale transient protein expression in mammalian cells. Journal of Structural Biology, 2011, 175, 209-215.	1.3	55
49	Recording information on protein complexes in an information management system. Journal of Structural Biology, 2011, 175, 224-229.	1.3	3
50	Structure of HLA-A*0301 in complex with a peptide of proteolipid protein: insights into the role of HLA-A alleles in susceptibility to multiple sclerosis. Acta Crystallographica Section D: Biological Crystallography, 2011, 67, 447-454.	2.5	29
51	A Dual Binding Mode for RhoGTPases in Plexin Signalling. PLoS Biology, 2011, 9, e1001134.	2.6	54
52	Structural basis of semaphorinâ€“plexin signalling. Nature, 2010, 467, 1118-1122.	13.7	211
53	Interactions between Hedgehog proteins and their binding partners come into view. Genes and Development, 2010, 24, 2001-2012.	2.7	184
54	Evidence for the Specificity for Platelet HPA-1a Alloepitope and the Presenting HLA-DR52a of Diverse Antigen-Specific Helper T Cell Clones from Alloimmunized Mothers. Journal of Immunology, 2009, 183, 677-686.	0.4	27

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55	Crystal Structure of Enzyme I of the Phosphoenolpyruvate Sugar Phosphotransferase System in the Dephosphorylated State. Journal of Biological Chemistry, 2009, 284, 33169-33176.	1.6	22
56	Structural Plasticity of Eph Receptor A4 Facilitates Cross-Class Ephrin Signaling. Structure, 2009, 17, 1386-1397.	1.6	86
57	Structural insights into hedgehog ligand sequestration by the human hedgehog-interacting protein HHIP. Nature Structural and Molecular Biology, 2009, 16, 698-703.	3.6	123
58	An Ion-channel Modulator from the Saliva of the Brown Ear Tick has a Highly Modified Kunitz/BPTI Structure. Journal of Molecular Biology, 2009, 389, 734-747.	2.0	42
59	Crystal Structure of the GluR2 Amino-Terminal Domain Provides Insights into the Architecture and Assembly of Ionotropic Glutamate Receptors. Journal of Molecular Biology, 2009, 392, 1125-1132.	2.0	70
60	Structure and functional analysis of the IGF-II/IGF2R interaction. EMBO Journal, 2008, 27, 265-276.	3.5	101
61	Biochemical and Structural Studies of ASPP Proteins Reveal Differential Binding to p53, p63, and p73. Structure, 2008, 16, 259-268.	1.6	73
62	Receptor protein tyrosine phosphatase Î¼: measuring where to stick. Biochemical Society Transactions, 2008, 36, 167-172.	1.6	14
63	Structure of a Tyrosine Phosphatase Adhesive Interaction Reveals a Spacer-Clamp Mechanism. Science, 2007, 317, 1217-1220.	6.0	107
64	Mutations in Î±-Tubulin Cause Abnormal Neuronal Migration in Mice and Lissencephaly in Humans. Cell, 2007, 128, 45-57.	13.5	397
65	A Tick Protein with a Modified Kunitz Fold Inhibits Human Tryptase. Journal of Molecular Biology, 2007, 368, 1172-1186.	2.0	57
66	Large spectrum of lissencephaly and pachygyria phenotypes resulting from de novo missense mutations in tubulin alpha 1A (TUBA1A). Human Mutation, 2007, 28, 1055-1064.	1.1	213
67	Structure of the fungal Î²-glucan-binding immune receptor dectin-1: Implications for function. Protein Science, 2007, 16, 1042-1052.	3.1	168
68	MHC class II proteins and disease: a structural perspective. Nature Reviews Immunology, 2006, 6, 271-282.	10.6	354
69	Molecular analysis of receptor protein tyrosine phosphatase Î¼-mediated cell adhesion. EMBO Journal, 2006, 25, 701-712.	3.5	82
70	The Structure and Function of the Outer Coat Protein VP9 of Banna Virus. Structure, 2005, 13, 17-28.	1.6	35
71	A procedure for setting up high-throughput nanolitre crystallization experiments. Crystallization workflow for initial screening, automated storage, imaging and optimization. Acta Crystallographica Section D: Biological Crystallography, 2005, 61, 651-657.	2.5	234
72	High-resolution structure of the catalytic region of MICAL (molecule interacting with CasL), a multidomain flavoenzyme-signaling molecule. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16836-16841.	3.3	75

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73	Crystal Structure of the Phosphoenolpyruvate-binding Enzyme I-Domain from the Thermoanaerobacter tengcongensis PEP: Sugar Phosphotransferase System (PTS). Journal of Molecular Biology, 2005, 346, 521-532.	2.0	34
74	Crystal structure of HLA-DQ0602 that protects against type 1 diabetes and confers strong susceptibility to narcolepsy. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1999-2004.	3.3	142
75	Crystal Structure of the Citrobacter freundii Dihydroxyacetone Kinase Reveals an Eight-stranded Î±-Helical Barrel ATP-binding Domain. Journal of Biological Chemistry, 2003, 278, 48236-48244.	1.6	47
76	A mechanism of covalent substrate binding in the x-ray structure of subunit K of theEscherichia colidihydroxyacetone kinase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8188-8192.	3.3	38
77	Mechanism-based Inhibition of Enzyme I of the Escherichia coli Phosphotransferase System. Journal of Biological Chemistry, 2002, 277, 6934-6942.	1.6	15
78	Intein-mediated cyclization of a soluble and a membrane protein in vivo: function and stability. Biophysical Chemistry, 2002, 96, 163-171.	1.5	20
79	Carbohydrate transporters of the bacterial phosphoenolpyruvate: sugar phosphotransferase system (PTS). FEBS Letters, 2001, 504, 104-111.	1.3	96