

# Patrick Scheerer

## List of Publications by Year in descending order

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107  
papers

6,759  
citations

94433

37  
h-index

64796

79  
g-index

118  
all docs

118  
docs citations

118  
times ranked

6753  
citing authors

#	ARTICLE	IF	CITATIONS
1	A cytosolic disulfide bridge-supported dimerization is crucial for stability and cellular distribution of Coxsackievirus B3 protein 3A. <i>FEBS Journal</i> , 2022, 289, 3826-3838.	4.7	1
2	Molecular Effects of Auto-Antibodies on Angiotensin II Type 1 Receptor Signaling and Cell Proliferation. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3984.	4.1	5
3	Autoantibodies Targeting AT1- and ETA-Receptors Link Endothelial Proliferation and Coagulation via Ets-1 Transcription Factor. <i>International Journal of Molecular Sciences</i> , 2022, 23, 244.	4.1	8
4	Angiotensin and Endothelin Receptor Structures With Implications for Signaling Regulation and Pharmacological Targeting. <i>Frontiers in Endocrinology</i> , 2022, 13, 880002.	3.5	7
5	Photoinduced reaction mechanisms in prototypical and bathy phytochromes. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 11967-11978.	2.8	6
6	Ultrafast proton-coupled isomerization in the phototransformation of phytochrome. <i>Nature Chemistry</i> , 2022, 14, 823-830.	13.6	12
7	Light- and temperature-dependent dynamics of chromophore and protein structural changes in bathy phytochrome Agp2. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 18197-18205.	2.8	8
8	Phytochromes in <i>Agrobacterium fabrum</i> . <i>Frontiers in Plant Science</i> , 2021, 12, 642801.	3.6	7
9	Phytochrome Mediated Responses in <i>Agrobacterium fabrum</i> : Growth, Motility and Plant Infection. <i>Current Microbiology</i> , 2021, 78, 2708-2719.	2.2	4
10	Functional differences between TSHR alleles associate with variation in spawning season in Atlantic herring. <i>Communications Biology</i> , 2021, 4, 795.	4.4	5
11	Zebrafish Bioassay for Screening Therapeutic Candidates Based on Melanotrophic Activity. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9313.	4.1	2
12	Local Electric Field Changes during the Photoconversion of the Bathy Phytochrome Agp2. <i>Biochemistry</i> , 2021, 60, 2967-2977.	2.5	10
13	Structures of active melanocortin-4 receptor-Gs-protein complexes with NDP-MSH and setmelanotide. <i>Cell Research</i> , 2021, 31, 1176-1189.	12.0	40
14	MicroRNA-100-5p and microRNA-298-5p released from apoptotic cortical neurons are endogenous Toll-like receptor 7/8 ligands that contribute to neurodegeneration. <i>Molecular Neurodegeneration</i> , 2021, 16, 80.	10.8	18
15	On the Role of the Conserved Histidine at the Chromophore Isomerization Site in Phytochromes. <i>Journal of Physical Chemistry B</i> , 2021, 125, 13696-13709.	2.6	8
16	Expression and Characterization of Relaxin Family Peptide Receptor 1 Variants. <i>Frontiers in Pharmacology</i> , 2021, 12, 826112.	3.5	2
17	Structural Complexity and Plasticity of Signaling Regulation at the Melanocortin-4 Receptor. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5728.	4.1	12
18	The intramolecular agonist is obligate for activation of glycoprotein hormone receptors. <i>FASEB Journal</i> , 2020, 34, 11243-11256.	0.5	15

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19	Differential Signaling Profiles of MC4R Mutations with Three Different Ligands. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1224.	4.1	24
20	Intramolecular Proton Transfer Controls Protein Structural Changes in Phytochrome. <i>Biochemistry</i> , 2020, 59, 1023-1037.	2.5	14
21	The Lumi-R Intermediates of Prototypical Phytochromes. <i>Journal of Physical Chemistry B</i> , 2020, 124, 4044-4055.	2.6	10
22	Human endogenous retrovirus HERV-K(HML-2) RNA causes neurodegeneration through Toll-like receptors. <i>JCI Insight</i> , 2020, 5, .	5.0	68
23	Signal Transduction and Pathogenic Modifications at the Melanocortin-4 Receptor: A Structural Perspective. <i>Frontiers in Endocrinology</i> , 2019, 10, 515.	3.5	24
24	Role of the Propionic Side Chains for the Photoconversion of Bacterial Phytochromes. <i>Biochemistry</i> , 2019, 58, 3504-3519.	2.5	13
25	The Axonal Membrane Protein PRG2 Inhibits PTEN and Directs Growth to Branches. <i>Cell Reports</i> , 2019, 29, 2028-2040.e8.	6.4	25
26	Melanocortin Receptor Accessory Protein 2-Induced Adrenocorticotrophic Hormone Response of Human Melanocortin 4 Receptor. <i>Journal of the Endocrine Society</i> , 2019, 3, 314-323.	0.2	19
27	Design of a light-gated proton channel based on the crystal structure of <i>Coccomyxa</i> rhodopsin. <i>Science Signaling</i> , 2019, 12, .	3.6	24
28	Evaluation of a rare glucose-independent insulinotropic polypeptide receptor variant in a patient with diabetes. <i>Diabetes, Obesity and Metabolism</i> , 2019, 21, 1168-1176.	4.4	1
29	A New Multisystem Disorder Caused by the $G\alpha_s$ Mutation p.F376V. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2019, 104, 1079-1089.	3.6	14
30	Recurrent convergent evolution at amino acid residue 261 in fish rhodopsin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 18473-18478.	7.1	59
31	The Pathogenic TSH $\beta$ -subunit Variant C105Vfs114X Causes a Modified Signaling Profile at TSHR. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5564.	4.1	4
32	Tracking the route of molecular oxygen in O <sub>2</sub> -tolerant membrane-bound [NiFe] hydrogenase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2229-E2237.	7.1	41
33	The arrestin-1 finger loop interacts with two distinct conformations of active rhodopsin. <i>Journal of Biological Chemistry</i> , 2018, 293, 4403-4410.	3.4	9
34	Mechanistic insights into the role of prenyl-binding protein PrBP in membrane dissociation of phosphodiesterase 6. <i>Nature Communications</i> , 2018, 9, 90.	12.8	13
35	Structural snapshot of a bacterial phytochrome in its functional intermediate state. <i>Nature Communications</i> , 2018, 9, 4912.	12.8	62
36	Use of a sequential high throughput screening assay to identify novel inhibitors of the eukaryotic SRP-Sec61 targeting/translocation pathway. <i>PLoS ONE</i> , 2018, 13, e0208641.	2.5	6

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37	Protein structures guide the design of a much-needed tool for neuroscience. <i>Nature</i> , 2018, 561, 312-313.	27.8	0
38	The Trace Amine-Associated Receptor 1 Agonist 3-Iodothyronamine Induces Biased Signaling at the Serotonin 1b Receptor. <i>Frontiers in Pharmacology</i> , 2018, 9, 222.	3.5	22
39	Binding, Thermodynamics, and Selectivity of a Non-peptide Antagonist to the Melanocortin-4 Receptor. <i>Frontiers in Pharmacology</i> , 2018, 9, 560.	3.5	9
40	An incretin-based tri-agonist promotes superior insulin secretion from murine pancreatic islets via PLC activation. <i>Cellular Signalling</i> , 2018, 51, 13-22.	3.6	13
41	MC4R agonism promotes durable weight loss in patients with leptin receptor deficiency. <i>Nature Medicine</i> , 2018, 24, 551-555.	30.7	219
42	Crystal structure and functional characterization of selenocysteine-containing glutathione peroxidase 4 suggests an alternative mechanism of peroxide reduction. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2018, 1863, 1095-1107.	2.4	45
43	The crystal structure of <i>Pseudomonas aeruginosa</i> lipoxygenase Ala420Gly mutant explains the improved oxygen affinity and the altered reaction specificity. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2017, 1862, 463-473.	2.4	26
44	Crystal Structures of Bacterial (6â€4) Photolyase Mutants with Impaired DNA Repair Activity. <i>Photochemistry and Photobiology</i> , 2017, 93, 304-314.	2.5	12
45	Common Structural Elements in the Chromophore Binding Pocket of the Pfr State of Bathy Phytochromes. <i>Photochemistry and Photobiology</i> , 2017, 93, 724-732.	2.5	21
46	Phytochromes from <i>Agrobacterium fabrum</i> . <i>Photochemistry and Photobiology</i> , 2017, 93, 642-655.	2.5	23
47	Structural mechanism of arrestin activation. <i>Current Opinion in Structural Biology</i> , 2017, 45, 160-169.	5.7	55
48	Double-flow focused liquid injector for efficient serial femtosecond crystallography. <i>Scientific Reports</i> , 2017, 7, 44628.	3.3	90
49	Intersubunit distances in full-length, dimeric, bacterial phytochrome Agp1, as measured by pulsed electron-electron double resonance (PELDOR) between different spin label positions, remain unchanged upon photoconversion. <i>Journal of Biological Chemistry</i> , 2017, 292, 7598-7606.	3.4	13
50	Divalent Cations Increase DNA Repair Activities of Bacterial (6â€4) Photolyases. <i>Photochemistry and Photobiology</i> , 2017, 93, 323-330.	2.5	8
51	Structural and Functional Features of the Thyrotropin Receptor: A Class A G-Protein-Coupled Receptor at Work. <i>Frontiers in Endocrinology</i> , 2017, 8, 86.	3.5	73
52	Insights into Basal Signaling Regulation, Oligomerization, and Structural Organization of the Human G-Protein Coupled Receptor 83. <i>PLoS ONE</i> , 2016, 11, e0168260.	2.5	16
53	Ein Netzwerk aus hydrophoben Tunneln zum Transport gasförmiger Reaktanten in einer O <sub>2</sub> -toleranten, membrangebundenen [NiFe]-Hydrogenase, aufgedeckt durch Derivatisierung mit Krypton. <i>Angewandte Chemie</i> , 2016, 128, 5676-5680.	2.0	4
54	Krypton Derivatization of an O <sub>2</sub> -Tolerant Membrane-Bound [NiFe] Hydrogenase Reveals a Hydrophobic Tunnel Network for Gas Transport. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 5586-5590.	13.8	42

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55	Structures of ribosome-bound initiation factor 2 reveal the mechanism of subunit association. <i>Science Advances</i> , 2016, 2, e1501502.	10.3	59
56	Structural and functional basis of phospholipid oxygenase activity of bacterial lipoxygenase from <i>Pseudomonas aeruginosa</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016, 1861, 1681-1692.	2.4	46
57	The Crystal Structures of the N-terminal Photosensory Core Module of <i>Agrobacterium</i> Phytochrome Agp1 as Parallel and Anti-parallel Dimers. <i>Journal of Biological Chemistry</i> , 2016, 291, 20674-20691.	3.4	41
58	Structures of the photosensory core module of bacteriophytochrome Agp1 from two crystal forms reveal plasticity of the Pr state. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, s228-s229.	0.1	0
59	Key Amino Acids in the Bacterial (6-4) Photolyase PhrB from <i>Agrobacterium fabrum</i> . <i>PLoS ONE</i> , 2015, 10, e0140955.	2.5	32
60	Role of Structural Dynamics at the Receptor G Protein Interface for Signal Transduction. <i>PLoS ONE</i> , 2015, 10, e0143399.	2.5	12
61	Molecular architecture of the ribosome-bound Hepatitis C Virus internal ribosomal entry site <scp>RNA</scp>. <i>EMBO Journal</i> , 2015, 34, 3042-3058.	7.8	80
62	Resonance Raman Spectroscopic Analysis of the [NiFe] Active Site and the Proximal [4Fe-3S] Cluster of an O <sub>2</sub> -Tolerant Membrane-Bound Hydrogenase in the Crystalline State. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13785-13796.	2.6	30
63	The Activation Pathway of Human Rhodopsin in Comparison to Bovine Rhodopsin. <i>Journal of Biological Chemistry</i> , 2015, 290, 20117-20127.	3.4	14
64	A protonation-coupled feedback mechanism controls the signalling process in bathy phytochromes. <i>Nature Chemistry</i> , 2015, 7, 423-430.	13.6	74
65	Structure-Based Biophysical Analysis of the Interaction of Rhodopsin with G Protein and Arrestin. <i>Methods in Enzymology</i> , 2015, 556, 563-608.	1.0	19
66	Structural Snapshots of Actively Translating Human Ribosomes. <i>Cell</i> , 2015, 161, 845-857.	28.9	161
67	The Class III Cyclobutane Pyrimidine Dimer Photolyase Structure Reveals a New Antenna Chromophore Binding Site and Alternative Photoreduction Pathways. <i>Journal of Biological Chemistry</i> , 2015, 290, 11504-11514.	3.4	46
68	Two photolyases in <i>Agrobacterium tumefaciens</i> . <i>FASEB Journal</i> , 2015, 29, 879.22.	0.5	1
69	Reversible [4Fe-3S] cluster morphing in an O <sub>2</sub> -tolerant [NiFe] hydrogenase. <i>Nature Chemical Biology</i> , 2014, 10, 378-385.	8.0	85
70	Crystal structure of a common GPCR-binding interface for G protein and arrestin. <i>Nature Communications</i> , 2014, 5, 4801.	12.8	149
71	Position of Transmembrane Helix 6 Determines Receptor G Protein Coupling Specificity. <i>Journal of the American Chemical Society</i> , 2014, 136, 11244-11247.	13.7	105
72	Conformational Dynamics During GPCR - G Protein Coupling. <i>Biophysical Journal</i> , 2014, 106, 37a.	0.5	0

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73	Dynamics of C-Terminal Gt $\pm$ and Gs $\pm$ Peptides in the Binding Cavity of Active GPCRs. <i>Biophysical Journal</i> , 2013, 104, 538a.	0.5	0
74	Dynein light chain 8a of <i>Toxoplasma gondii</i> , a unique conoid-localized $\beta$ -strand-swapped homodimer, is required for an efficient parasite growth. <i>FASEB Journal</i> , 2013, 27, 1034-1047.	0.5	15
75	Molecular basis for the catalytic inactivity of a naturally occurring near-null variant of human ALOX15. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2013, 1831, 1702-1713.	2.4	4
76	Crystal structure of pre-activated arrestin p44. <i>Nature</i> , 2013, 497, 142-146.	27.8	156
77	Structure of the Biliverdin Cofactor in the Pfr State of Bathy and Prototypical Phytochromes. <i>Journal of Biological Chemistry</i> , 2013, 288, 16800-16814.	3.4	58
78	Crystal structure of a prokaryotic (6-4) photolyase with an Fe-S cluster and a 6,7-dimethyl-8-ribityllumazine antenna chromophore. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 7217-7222.	7.1	89
79	Effect of channel mutations on the uptake and release of the retinal ligand in opsin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5247-5252.	7.1	71
80	The complex of tmRNA-SmpB and EF-G on translocating ribosomes. <i>Nature</i> , 2012, 485, 526-529.	27.8	76
81	Conserved Tyr223 <sup>5.58</sup> Plays Different Roles in the Activation and G-Protein Interaction of Rhodopsin. <i>Journal of the American Chemical Society</i> , 2011, 133, 7159-7165.	13.7	30
82	The crystal structure of an oxygen-tolerant hydrogenase uncovers a novel iron-sulphur centre. <i>Nature</i> , 2011, 479, 249-252.	27.8	342
83	Tight association of N-terminal and catalytic subunits of rabbit 12/15-lipoxygenase is important for protein stability and catalytic activity. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2011, 1811, 1001-1010.	2.4	19
84	Crystal structure of metarhodopsin II. <i>Nature</i> , 2011, 471, 651-655.	27.8	620
85	Structural Basis for Two-component System Inhibition and Pilus Sensing by the Auxiliary CpxP Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 9805-9814.	3.4	59
86	Light-Induced Conformational Changes of the Chromophore and the Protein in Phytochromes: Bacterial Phytochromes as Model Systems. <i>ChemPhysChem</i> , 2010, 11, 1090-1105.	2.1	39
87	Light-Induced Activation of Bacterial Phytochrome Agp1 Monitored by Static and Time-Resolved FTIR Spectroscopy. <i>ChemPhysChem</i> , 2010, 11, 1207-1214.	2.1	31
88	Crystallization and preliminary X-ray crystallographic analysis of the [NiFe]-hydrogenase maturation factor HypF1 from <i>Ralstonia eutropha</i> H16. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 452-455.	0.7	6
89	A coleopteran triosephosphate isomerase: X-ray structure and phylogenetic impact of insect sequences. <i>Insect Molecular Biology</i> , 2010, 19, 35-48.	2.0	7
90	A Ligand Channel through the G Protein Coupled Receptor Opsin. <i>PLoS ONE</i> , 2009, 4, e4382.	2.5	102

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91	Structural and kinetic modeling of an activating helix switch in the rhodopsin-transducin interface. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10660-10665.	7.1	47
92	A G protein-coupled receptor at work: the rhodopsin model. Trends in Biochemical Sciences, 2009, 34, 540-552.	7.5	328
93	Chromophore Structure of Cyanobacterial Phytochrome Cph1 in the Pr State: Reconciling Structural and Spectroscopic Data by QM/MM Calculations. Biophysical Journal, 2009, 96, 4153-4163.	0.5	66
94	The structure of the anti- <i>Ca</i> myc antibody 9E10 Fab fragment/epitope peptide complex reveals a novel binding mode dominated by the heavy chain hypervariable loops. Proteins: Structure, Function and Bioinformatics, 2008, 73, 552-565.	2.6	21
95	Chromophore Heterogeneity and Photoconversion in Phytochrome Crystals and Solution Studied by Resonance Raman Spectroscopy. Angewandte Chemie - International Edition, 2008, 47, 4753-4755.	13.8	64
96	Crystal structure of the ligand-free G-protein-coupled receptor opsin. Nature, 2008, 454, 183-187.	27.8	870
97	Crystal structure of opsin in its G-protein-interacting conformation. Nature, 2008, 455, 497-502.	27.8	1,019
98	Highly Conserved Residues Asp-197 and His-250 in Agp1 Phytochrome Control the Proton Affinity of the Chromophore and Pfr Formation. Journal of Biological Chemistry, 2007, 282, 2116-2123.	3.4	106
99	Structural Basis for Catalytic Activity and Enzyme Polymerization of Phospholipid Hydroperoxide Glutathione Peroxidase-4 (GPx4). Biochemistry, 2007, 46, 9041-9049.	2.5	138
100	Structure of an anti-cholera toxin antibody Fab in complex with an epitope-derived peptide: a case of polyspecific recognition. Journal of Molecular Recognition, 2007, 20, 263-274.	2.1	6
101	Crystallization and preliminary X-ray crystallographic analysis of the N-terminal photosensory module of phytochrome Agp1, a biliverdin-binding photoreceptor from <i>Agrobacterium tumefaciens</i> . Journal of Structural Biology, 2006, 153, 97-102.	2.8	29
102	Insights into functional aspects of centrin from the structure of N-terminally extended mouse centrin 1. Vision Research, 2006, 46, 4568-4574.	1.4	14
103	Assembly of Synthetic Locked Chromophores with <i>Agrobacterium</i> Phytochromes Agp1 and Agp2. Journal of Biological Chemistry, 2006, 281, 28162-28173.	3.4	50
104	Crystallization and preliminary X-ray studies of mouse centrin1. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 510-513.	0.7	5
105	Crystallization and Preliminary X-ray Analysis of Complexes of Porcine Pancreatic Elastase with two Natural Inhibitors. Protein and Peptide Letters, 2004, 11, 393-399.	0.9	2
106	Resonance Raman spectroscopic analysis of the iron-sulfur cluster redox chain of the <i>Ralstonia eutropha</i> membrane-bound [NiFe] hydrogenase. Journal of Raman Spectroscopy, 0, , .	2.5	4
107	Methodical tools for the structural elucidation of G-protein coupled receptors. Endocrine Abstracts, 0, , .	0.0	0