John B Bruning

List of Publications by Year in Descending Order

86 papers	2,663 citations	22 h-index	51 g-index
95 ext. papers	3,169 ext. citations	6.8 avg, IF	4.86 L-index

#	Paper	IF	Citations
86	An Altered Heme Environment in an Engineered Cytochrome P450 Enzyme Enables the Switch from Monooxygenase to Peroxygenase Activity. *ACS Catalysis*, **2022**, 12, 1614-1625	13.1	2
85	Structural insights into the antifungal drug target guanosine monophosphate synthase from Aspergillus fumigatus.. *Acta Crystallographica Section D: Structural Biology*, **2022**, 78, 248-259	5.5	0
84	A comparison of the bacterial CYP51 cytochrome P450 enzymes from Mycobacterium marinum and Mycobacterium tuberculosis.. *Journal of Steroid Biochemistry and Molecular Biology*, **2022**, 106097	5.1	0
83	TSC-insensitive Rheb mutations induce oncogenic transformation through a combination of constitutively active mTORC1 signalling and proteome remodelling. *Cellular and Molecular Life Sciences*, **2021**, 78, 4035-4052	10.3	0
82	Simplified heavy-atom derivatization of protein structures via co-crystallization with the MAD tetragon tetrabromoterephthalic acid. *Acta Crystallographica Section F, Structural Biology Communications*, **2021**, 77, 156-162	1.1	0
81	A turn-on fluorescent PCNA sensor. *Bioorganic and Medicinal Chemistry Letters*, **2021**, 41, 128031	2.9	
80	Approaches to Introduce Helical Structure in Cysteine-Containing Peptides with a Bimane Group. *ChemBioChem*, **2021**, 22, 2711-2720	3.8	1
79	An antimony-phosphomolybdate microassay of ATPase activity through the detection of inorganic phosphate. *Analytical Biochemistry*, **2021**, 623, 114170	3.1	2
78	Nucleoside selectivity of Aspergillus fumigatus nucleoside-diphosphate kinase. *FEBS Journal*, **2021**, 288, 2398-2417	5.7	2
77	Vanishing white matter: Eukaryotic initiation factor 2B model and the impact of missense mutations. *Molecular Genetics & Genomic Medicine*, **2021**, 9, e1593	2.3	7
76	A cell permeable bimane-constrained PCNA-interacting peptide. *RSC Chemical Biology*, **2021**, 2, 1499-1508		0
75	Understanding the Mechanistic Requirements for Efficient and Stereoselective Alkene Epoxidation by a Cytochrome P450 Enzyme. *ACS Catalysis*, **2021**, 11, 1995-2010	13.1	7
74	Immunogenicity study of engineered ferritins with C- and N-terminus insertion of Epstein-Barr nuclear antigen 1 epitope. *Vaccine*, **2021**, 39, 4830-4841	4.1	3
73	Engineering potassium activation into biosynthetic thiolase. *Biochemical Journal*, **2021**, 478, 3047-3062	3.8	
72	Acquired JAK2 mutations confer resistance to JAK inhibitors in cell models of acute lymphoblastic leukemia. *Npj Precision Oncology*, **2021**, 5, 75	9.8	1
71	Constitutive JAK/STAT signaling is the primary mechanism of resistance to JAKi in TYK2-rearranged acute lymphoblastic leukemia. *Cancer Letters*, **2021**, 512, 28-37	9.9	2
70	The Stereoselective Oxidation of para-Substituted Benzenes by a Cytochrome P450 Biocatalyst. *Chemistry - A European Journal*, **2021**, 27, 14765-14777	4.8	1

69	The therapeutic potential of inhibiting PPARγ phosphorylation to treat type 2 diabetes. *Journal of Biological Chemistry*, **2021**, 297, 101030	5.4	5
68	Inhibition of Dethiobiotin Synthase (DTBS): Toward Next-Generation Antituberculosis Agents. *ACS Chemical Biology*, **2021**, 16, 2339-2347	4.9	0
67	Unlocking the PIP-box: A peptide library reveals interactions that drive high-affinity binding to human PCNA. *Journal of Biological Chemistry*, **2021**, 296, 100773	5.4	1
66	PPARγ and γ Ligand Design: Honing the Traditional Empirical Method with a More Holistic Overview **2021**, 111-178		
65	Biophysical Techniques for Distinguishing Ligand Binding Modes in Cytochrome P450 Monooxygenases. *Biochemistry*, **2020**, 59, 1038-1050	3.2	6
64	Structural insights into the role of the acid-alcohol pair of residues required for dioxygen activation in cytochrome P450 enzymes. *Journal of Biological Inorganic Chemistry*, **2020**, 25, 583-596	3.7	10
63	d-Alanine-d-alanine ligase as a model for the activation of ATP-grasp enzymes by monovalent cations. *Journal of Biological Chemistry*, **2020**, 295, 7894-7904	5.4	6
62	A comparison of steroid and lipid binding cytochrome P450s from Mycobacterium marinum and Mycobacterium tuberculosis. *Journal of Inorganic Biochemistry*, **2020**, 209, 111116	4.2	4
61	Investigation of the requirements for efficient and selective cytochrome P450 monooxygenase catalysis across different reactions. *Journal of Inorganic Biochemistry*, **2020**, 203, 110913	4.2	9
60	Targeting PCNA with Peptide Mimetics for Therapeutic Purposes. *ChemBioChem*, **2020**, 21, 442-450	3.8	12
59	Targeting Unconventional Pathways in Pursuit of Novel Antifungals. *Frontiers in Molecular Biosciences*, **2020**, 7, 621366	5.6	6
58	Obtaining Crystals of PPARγ Ligand Binding Domain Bound to Small Molecules. *Methods in Molecular Biology*, **2019**, 1966, 253-260	1.4	2
57	The characterisation of two members of the cytochrome P450 CYP150 family: CYP150A5 and CYP150A6 from Mycobacterium marinum. *Biochimica Et Biophysica Acta - General Subjects*, **2019**, 1863, 925-934	4	3
56	Unique Polypharmacology Nuclear Receptor Modulator Blocks Inflammatory Signaling Pathways. *ACS Chemical Biology*, **2019**, 14, 1051-1062	4.9	7
55	Sulfonamide-Based Inhibitors of Biotin Protein Ligase as New Antibiotic Leads. *ACS Chemical Biology*, **2019**, 14, 1990-1997	4.9	3
54	An aldo-keto reductase with 2-keto-l-gulonate reductase activity functions in l-tartaric acid biosynthesis from vitamin C in. *Journal of Biological Chemistry*, **2019**, 294, 15932-15946	5.4	9
53	Combining random microseed matrix screening and the magic triangle for the efficient structure solution of a potential lysin from bacteriophage P68. *Acta Crystallographica Section D: Structural Biology*, **2019**, 75, 670-681	5.5	2
52	Shooting three inflammatory targets with a single bullet: Novel multi-targeting anti-inflammatory glitazones. *European Journal of Medicinal Chemistry*, **2019**, 167, 562-582	6.8	20

51	The role of N-terminal heterocycles in hydrogen bonding to α-chymotrypsin. *Bioorganic and Medicinal Chemistry Letters*, **2019**, 29, 396-399	2.9	0
50	Structure, Mechanism, and Inhibition of Thioredoxin Reductase. *Antimicrobial Agents and Chemotherapy*, **2019**, 63,	5.9	13
49	Structural and functional characterisation of the cytochrome P450 enzyme CYP268A2 from. *Biochemical Journal*, **2018**, 475, 705-722	3.8	7
48	Structure of Aspergillus fumigatus Cytosolic Thiolase: Trapped Tetrahedral Reaction Intermediates and Activation by Monovalent Cations. *ACS Catalysis*, **2018**, 8, 1973-1989	13.1	3
47	Rational Design of a 310-Helical PIP-Box Mimetic Targeting PCNA, the Human Sliding Clamp. *Chemistry - A European Journal*, **2018**, 24, 11238-11238	4.8	
46	PPARγ in Complex with an Antagonist and Inverse Agonist: a Tumble and Trap Mechanism of the Activation Helix. *IScience*, **2018**, 5, 69-79	6.1	29
45	Rational Design of a 3 -Helical PIP-Box Mimetic Targeting PCNA, the Human Sliding Clamp. *Chemistry - A European Journal*, **2018**, 24, 11325-11331	4.8	9
44	Structural and Dynamic Elucidation of a Non-acid PPAR Partial Agonist: SR1988. *Nuclear Receptor Research*, **2018**, 5,	1.4	3
43	Crystal Structure of Bovine Alpha-Chymotrypsin in Space Group P65. *Crystals*, **2018**, 8, 460	2.3	2
42	Precipitant-ligand exchange technique reveals the ADP binding mode in Mycobacterium tuberculosis dethiobiotin synthetase. *Acta Crystallographica Section D: Structural Biology*, **2018**, 74, 965-972	5.5	3
41	Mycobacterium tuberculosis Dethiobiotin Synthetase Facilitates Nucleoside Triphosphate Promiscuity through Alternate Binding Modes. *ACS Catalysis*, **2018**, 8, 10774-10783	13.1	6
40	Chemical Crosslinking Mass Spectrometry Reveals the Conformational Landscape of the Activation Helix of PPARγ a Model for Ligand-Dependent Antagonism. *Structure*, **2018**, 26, 1431-1439.e6	5.2	14
39	Cytochrome P450 CYP199A4 from Rhodopseudomonas palustris Catalyzes Heteroatom Dealkylations, Sulfoxidation, and Amide and Cyclic Hemiacetal Formation. *ACS Catalysis*, **2018**, 8, 5915-5927	13.1	14
38	Structure of the sliding clamp from the fungal pathogen Aspergillus fumigatus (AfumPCNA) and interactions with Human p21. *FEBS Journal*, **2017**, 284, 985-1002	5.7	6
37	Mechanisms Governing Precise Protein Biotinylation. *Trends in Biochemical Sciences*, **2017**, 42, 383-394	10.3	15
36	X-ray crystal structure of rivoglitazone bound to PPARγ and PPAR subtype selectivity of TZDs. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 1981-1991	4	11
35	Structure-Activity Relationship of 2,4-Dichloro-N-(3,5-dichloro-4-(quinolin-3-yloxy)phenyl)benzenesulfonamide (INT131) Analogs for PPARγ Targeted Antidiabetics. *Journal of Medicinal Chemistry*, **2017**, 60, 4584-4593	8.3	14
34	Expressing a moth abcc2 gene in transgenic Drosophila causes susceptibility to Bt Cry1Ac without requiring a cadherin-like protein receptor. *Insect Biochemistry and Molecular Biology*, **2017**, 80, 61-70	4.5	35

33	HDX reveals the conformational dynamics of DNA sequence specific VDR co-activator interactions. *Nature Communications*, **2017**, 8, 923	17.4	22
32	A mechanistic study on the inhibition of α-chymotrypsin by a macrocyclic peptidomimetic aldehyde. *Organic and Biomolecular Chemistry*, **2016**, 14, 6970-8	3.9	9
31	PPARG Post-translational Modifications Regulate Bone Formation and Bone Resorption. *EBioMedicine*, **2016**, 10, 174-84	8.8	45
30	SR2067 Reveals a Unique Kinetic and Structural Signature for PPARγ Partial Agonism. *ACS Chemical Biology*, **2016**, 11, 273-83	4.9	30
29	New insights into the evolutionary history of plant sorbitol dehydrogenase. *BMC Plant Biology*, **2015**, 15, 101	5.3	12
28	Structural mechanism for signal transduction in RXR nuclear receptor heterodimers. *Nature Communications*, **2015**, 6, 8013	17.4	84
27	Review of the Structural and Dynamic Mechanisms of PPARγ Partial Agonism. *PPAR Research*, **2015**, 2015, 816856	4.3	112
26	p21 Exploits Residue Tyr151 as a Tether for High-Affinity PCNA Binding. *Biochemistry*, **2015**, 54, 3483-93	3.2	21
25	Pharmacological repression of PPARγ promotes osteogenesis. *Nature Communications*, **2015**, 6, 7443	17.4	79
24	CYP199A4 catalyses the efficient demethylation and demethenylation of para-substituted benzoic acid derivatives. *RSC Advances*, **2015**, 5, 52007-52018	3.7	18
23	Structure, activity, and inhibition of the Carboxyltransferase β subunit of acetyl coenzyme A carboxylase (AccD6) from Mycobacterium tuberculosis. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 6122-32	5.9	16
22	Macrocyclic protease inhibitors with reduced peptide character. *Angewandte Chemie - International Edition*, **2014**, 53, 7828-31	16.4	21
21	Human variants in the neuronal basic helix-loop-helix/Per-Arnt-Sim (bHLH/PAS) transcription factor complex NPAS4/ARNT2 disrupt function. *PLoS ONE*, **2014**, 9, e85768	3.7	18
20	Characterization of human variants in obesity-related SIM1 protein identifies a hot-spot for dimerization with the partner protein ARNT2. *Biochemical Journal*, **2014**, 461, 403-12	3.8	7
19	Redefining the role of the quaternary shift in Bacillus stearothermophilus phosphofructokinase. *Biochemistry*, **2013**, 52, 5421-9	3.2	4
18	Rare variants in single-minded 1 (SIM1) are associated with severe obesity. *Journal of Clinical Investigation*, **2013**, 123, 3042-50	15.9	107
17	Loss-of-function mutations in SIM1 contribute to obesity and Prader-Willi-like features. *Journal of Clinical Investigation*, **2013**, 123, 3037-41	15.9	75
16	Structure of the apo form of Bacillus stearothermophilus phosphofructokinase. *Biochemistry*, **2012**, 51, 769-75	3.2	8

15	Antidiabetic actions of a non-agonist PPARγ ligand blocking Cdk5-mediated phosphorylation. *Nature*, **2011**, 477, 477-81	50.4	404
14	DNA binding alters coactivator interaction surfaces of the intact VDR-RXR complex. *Nature Structural and Molecular Biology*, **2011**, 18, 556-63	17.6	154
13	The TB Structural Genomics Consortium: a decade of progress. *Tuberculosis*, **2011**, 91, 155-72	2.6	33
12	Structure of the Mycobacterium tuberculosis D-alanine:D-alanine ligase, a target of the antituberculosis drug D-cycloserine. *Antimicrobial Agents and Chemotherapy*, **2011**, 55, 291-301	5.9	89
11	Coupling of receptor conformation and ligand orientation determine graded activity. *Nature Chemical Biology*, **2010**, 6, 837-43	11.7	102
10	Structural insights into the mechanism of the allosteric transitions of Mycobacterium tuberculosis cAMP receptor protein. *Journal of Biological Chemistry*, **2009**, 284, 36581-36591	5.4	30
9	NFkappaB selectivity of estrogen receptor ligands revealed by comparative crystallographic analyses. *Nature Chemical Biology*, **2008**, 4, 241-7	11.7	123
8	Prediction of the tissue-specificity of selective estrogen receptor modulators by using a single biochemical method. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 7171-6	11.5	76
7	Elemental isomerism: a boron-nitrogen surrogate for a carbon-carbon double bond increases the chemical diversity of estrogen receptor ligands. *Chemistry and Biology*, **2007**, 14, 659-69		57
6	Structural plasticity in the oestrogen receptor ligand-binding domain. *EMBO Reports*, **2007**, 8, 563-8	6.5	109
5	Structural plasticity in the oestrogen receptor ligand-binding domain. *EMBO Reports*, **2007**, 8, 610-610	6.5	1
4	Partial agonists activate PPARgamma using a helix 12 independent mechanism. *Structure*, **2007**, 15, 1258-71	5.21	271
3	Structural and thermodynamic analysis of human PCNA with peptides derived from DNA polymerase-delta p66 subunit and flap endonuclease-1. *Structure*, **2004**, 12, 2209-19	5.2	163
2	Different Geometric Requirements for Cytochrome P450-Catalyzed Aliphatic Versus Aromatic Hydroxylation Results in Chemoselective Oxidation. *ACS Catalysis*,1258-1267	13.1	0
1	Analysis of the mutation dynamics of SARS-CoV-2 reveals the spread history and emergence of RBD mutant with lower ACE2 binding affinity		46