Rasheduzzaman Chowdhury

List of Publications by Year
in descending order

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77 papers	5,317 citations	126907 33 h-index	85541 71 g-index
83 all docs	83 docs citations	83 times ranked	6637 citing authors

#	Article	IF	Citations
1	The oncometabolite 2â€hydroxyglutarate inhibits histone lysine demethylases. EMBO Reports, 2011, 12, 463-469.	4.5	851
2	Cellular oxygen sensing: Crystal structure of hypoxia-inducible factor prolyl hydroxylase (PHD2). Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9814-9819.	7.1	310
3	2-Oxoglutarate-Dependent Oxygenases. Annual Review of Biochemistry, 2018, 87, 585-620.	11.1	276
4	A new structural alternative in benzo[b]furans for antimicrobial activity. Bioorganic and Medicinal Chemistry, 2005, 13, 4796-4805.	3.0	264
5	Structural studies on human 2-oxoglutarate dependent oxygenases. Current Opinion in Structural Biology, 2010, 20, 659-672.	5.7	238
6	Structural Basis for Binding of Hypoxia-Inducible Factor to the Oxygen-Sensing Prolyl Hydroxylases. Structure, 2009, 17, 981-989.	3.3	205
7	Molecular and cellular mechanisms of HIF prolyl hydroxylase inhibitors in clinical trials. Chemical Science, 2017, 8, 7651-7668.	7.4	174
8	Role of the jelly-roll fold in substrate binding by 2-oxoglutarate oxygenases. Current Opinion in Structural Biology, 2012, 22, 691-700.	5.7	171
9	Targeting histone lysine demethylases â€" Progress, challenges, and the future. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2014, 1839, 1416-1432.	1.9	170
10	Arginine demethylation is catalysed by a subset of JmjC histone lysine demethylases. Nature Communications, 2016, 7, 11974.	12.8	168
11	5-Carboxy-8-hydroxyquinoline is a broad spectrum 2-oxoglutarate oxygenase inhibitor which causes iron translocation. Chemical Science, 2013, 4, 3110.	7.4	142
12	Oxygenase-catalyzed ribosome hydroxylation occurs in prokaryotes and humans. Nature Chemical Biology, 2012, 8, 960-962.	8.0	135
13	Plant Growth Regulator Daminozide Is a Selective Inhibitor of Human KDM2/7 Histone Demethylases. Journal of Medicinal Chemistry, 2012, 55, 6639-6643.	6.4	125
14	Highly selective inhibition of histone demethylases by de novo macrocyclic peptides. Nature Communications, 2017, 8, 14773.	12.8	124
15	Structural basis for oxygen degradation domain selectivity of the HIF prolyl hydroxylases. Nature Communications, 2016, 7, 12673.	12.8	109
16	Selective Small Molecule Probes for the Hypoxia Inducible Factor (HIF) Prolyl Hydroxylases. ACS Chemical Biology, 2013, 8, 1488-1496.	3.4	105
17	The human oxygen sensing machinery and its manipulation. Chemical Society Reviews, 2008, 37, 1308.	38.1	100
18	Ribosomal oxygenases are structurally conserved from prokaryotes to humans. Nature, 2014, 510, 422-426.	27.8	87

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19	Structureâ€“function relationships of human JmjC oxygenasesâ€”demethylases versus hydroxylases. Current Opinion in Structural Biology, 2016, 41, 62-72.	5.7	84
20	Dynamic Combinatorial Chemistry Employing Boronic Acids/Boronate Esters Leads to Potent Oxygenase Inhibitors. Angewandte Chemie - International Edition, 2012, 51, 6672-6675.	13.8	82
21	The oxygenase Jmjd6â€“a case study in conflicting assignments. Biochemical Journal, 2015, 468, 191-202.	3.7	76
22	Studies on the catalytic domains of multiple JmjC oxygenases using peptide substrates. Epigenetics, 2014, 9, 1596-1603.	2.7	74
23	Kinetic Rationale for Selectivity toward N- and C-terminal Oxygen-dependent Degradation Domain Substrates Mediated by a Loop Region of Hypoxia-Inducible Factor Prolyl Hydroxylases. Journal of Biological Chemistry, 2008, 283, 3808-3815.	3.4	72
24	Factorâ€inhibiting hypoxiaâ€inducible factor (FIH) catalyses the postâ€translational hydroxylation of histidinyl residues within ankyrin repeat domains. FEBS Journal, 2011, 278, 1086-1097.	4.7	68
25	Asparagine and Aspartate Hydroxylation of the Cytoskeletal Ankyrin Family Is Catalyzed by Factor-Inhibiting Hypoxia-inducible Factor. Journal of Biological Chemistry, 2011, 286, 7648-7660.	3.4	63
26	Evidence for a Stereoelectronic Effect in Human Oxygen Sensing. Angewandte Chemie - International Edition, 2009, 48, 1784-1787.	13.8	58
27	Potent and Selective Triazole-Based Inhibitors of the Hypoxia-Inducible Factor Prolyl-Hydroxylases with Activity in the Murine Brain. PLoS ONE, 2015, 10, e0132004.	2.5	57
28	Studies on the Reaction of Nitric Oxide with the Hypoxia-Inducible Factor Prolyl Hydroxylase Domain 2 (EGLN1). Journal of Molecular Biology, 2011, 410, 268-279.	4.2	54
29	Mutation analysis of HIF prolyl hydroxylases (PHD/EGLN) in individuals with features of phaeochromocytoma and renal cell carcinoma susceptibility. Endocrine-Related Cancer, 2010, 18, 73-83.	3.1	49
30	Evidence That Two Enzyme-derived Histidine Ligands Are Sufficient for Iron Binding and Catalysis by Factor Inhibiting HIF (FIH). Journal of Biological Chemistry, 2008, 283, 25971-25978.	3.4	46
31	Studies on Deacetoxycephalosporin C Synthase Support a Consensus Mechanism for 2-Oxoglutarate Dependent Oxygenases. Biochemistry, 2014, 53, 2483-2493.	2.5	43
32	Investigating the contribution of the active site environment to the slow reaction of hypoxia-inducible factor prolyl hydroxylase domain 2 with oxygen. Biochemical Journal, 2014, 463, 363-372.	3.7	41
33	The role of PHD2 mutations in the pathogenesis of erythrocytosis. Hypoxia (Auckland, N Z), 2014, 2, 71.	1.9	39
34	JMJD5 is a human arginyl C-3 hydroxylase. Nature Communications, 2018, 9, 1180.	12.8	37
35	Antimicrobial activity of Toona ciliata and Amoora rohituka. FÃ¬toterapÃ¬Ã¢, 2003, 74, 155-158.	2.2	33
36	The Jumonji-C oxygenase JMJD7 catalyzes (3S)-lysyl hydroxylation of TRAFAC GTPases. Nature Chemical Biology, 2018, 14, 688-695.	8.0	31

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37	Guaiane sesquiterpenes from Amoora rohituka. Phytochemistry, 2003, 62, 1213-1216.	2.9	30
38	Substrate Selectivity Analyses of Factor Inhibiting Hypoxiaâ€Inducible Factor. Angewandte Chemie - International Edition, 2013, 52, 1700-1704.	13.8	30
39	Introduction to Structural Studies on 2-Oxoglutarate-Dependent Oxygenases and Related Enzymes. 2-Oxoglutarate-Dependent Oxygenases, 2015, , 59-94.	0.8	30
40	2-Oxoglutarate regulates binding of hydroxylated hypoxia-inducible factor to prolyl hydroxylase domain 2. Chemical Communications, 2018, 54, 3130-3133.	4.1	29
41	ESIâ€MS Studies on Prolyl Hydroxylase Domainâ€...2 Reveal a New Metal Binding Site. ChemMedChem, 2008, 3, 569-572.	3.2	25
42	Biochemical and structural investigations clarify the substrate selectivity of the 2-oxoglutarate oxygenase JMJD6. Journal of Biological Chemistry, 2019, 294, 11637-11652.	3.4	25
43	Non-competitive cyclic peptides for targeting enzymeâ€“substrate complexes. Chemical Science, 2018, 9, 4569-4578.	7.4	24
44	Modulating carnitine levels by targeting its biosynthesis â€“ selective inhibition of Î³-butyrobetaine hydroxylase. Chemical Science, 2014, 5, 1765-1771.	7.4	23
45	2-Oxoglutarate analogue inhibitors of prolyl hydroxylase domain 2. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 6192-6195.	2.2	22
46	Structural Basis of Prolyl Hydroxylase Domain Inhibition by Molidustat. ChemMedChem, 2021, 16, 2082-2088.	3.2	22
47	Dual-action inhibitors of HIF prolyl hydroxylases that induce binding of a second iron ion. Organic and Biomolecular Chemistry, 2013, 11, 732-745.	2.8	21
48	Structureâ€Activity Relationship and Crystallographic Studies on 4â€Hydroxypyrimidine HIF Prolyl Hydroxylase Domain Inhibitors. ChemMedChem, 2020, 15, 270-273.	3.2	21
49	Use of mass spectrometry to probe the nucleophilicity of cysteinyl residues of prolyl hydroxylase domain 2. Analytical Biochemistry, 2009, 393, 215-221.	2.4	19
50	Preliminary Cytotoxicity Screening of Some Medicinal Plants of Bangladesh. Dhaka University Journal of Pharmaceutical Sciences, 2008, 7, 47-52.	0.2	17
51	Crystallographic and mass spectrometric analyses of a tandem GNAT protein from the clavulanic acid biosynthesis pathway. Proteins: Structure, Function and Bioinformatics, 2010, 78, 1398-1407.	2.6	16
52	Antimicrobial Activity of Some Indigenous Plants of Bangladesh. Dhaka University Journal of Pharmaceutical Sciences, 2008, 7, 23-26.	0.2	13
53	Chemotaxonomic significance of polyoxygenated flavonoids from the leaves of Micromelum minutum. Biochemical Systematics and Ecology, 2004, 32, 829-831.	1.3	12
54	Born to sense: biophysical analyses of the oxygen sensing prolyl hydroxylase from the simplest animal Trichoplax adhaerens. Hypoxia (Auckland, N Z), 2018, Volume 6, 57-71.	1.9	12

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55	5-Methylcoumarins from Toona ciliata stem bark and their chemotaxonomic significance. Biochemical Systematics and Ecology, 2004, 32, 103-105.	1.3	11
56	Mechanistic and structural studies of <scp>KDM</scp>â€catalysed demethylation of histone 1 isotype 4 at lysine 26. FEBS Letters, 2018, 592, 3264-3273.	2.8	10
57	Biochemical and biophysical analyses of hypoxia sensing prolyl hydroxylases from Dictyostelium discoideum and Toxoplasma gondii. Journal of Biological Chemistry, 2020, 295, 16545-16561.	3.4	10
58	Human Oxygenase Variants Employing a Single Protein Fe^{II} Ligand Are Catalytically Active. Angewandte Chemie - International Edition, 2021, 60, 14657-14663.	13.8	10
59	Studies on spiro[4.5]decanone prolyl hydroxylase domain inhibitors. MedChemComm, 2019, 10, 500-504.	3.4	8
60	Bioactivity from Toona ciliata Stem Bark. Pharmaceutical Biology, 2003, 41, 281-283.	2.9	7
61	CHAPTER 6. The Role of 2-Oxoglutarate-Dependent Oxygenases in Hypoxia Sensing. 2-Oxoglutarate-Dependent Oxygenases, 2015, , 169-209.	0.8	7
62	Studies on the Substrate Selectivity of the Hypoxiaâ€inducible Factor Prolyl Hydroxylaseâ€…2 Catalytic Domain. ChemBioChem, 2018, 19, 2262-2267.	2.6	6
63	Small-molecules that covalently react with a human prolyl hydroxylase â€“ towards activity modulation and substrate capture. Chemical Communications, 2019, 55, 1020-1023.	4.1	6
64	A human protein hydroxylase that accepts D-residues. Communications Chemistry, 2020, 3, .	4.5	6
65	Kauren diterpenes from Wedelia calendulacea. Biochemical Systematics and Ecology, 2003, 31, 539-540.	1.3	5
66	A hydroxylated mansumbinen-28-oic acid from Combretum coccineum. Biochemical Systematics and Ecology, 2004, 32, 443-445.	1.3	5
67	Structural and biochemical analyses reveal how ornithine acetyl transferase binds acidic and basic amino acid substrates. Organic and Biomolecular Chemistry, 2011, 9, 6219.	2.8	5
68	A Convenient Synthesis of New Annelated Pyrimidines and Their Biological Importance. Journal of Heterocyclic Chemistry, 2014, 51, E216.	2.6	5
69	Inhibition of JMJD6 by 2â€Oxoglutarate Mimics. ChemMedChem, 2022, 17, e202100398.	3.2	5
70	Use of cyclic peptides to induce crystallization: case study with prolyl hydroxylase domain 2. Scientific Reports, 2020, 10, 21964.	3.3	5
71	Factor inhibiting HIF can catalyze two asparaginyl hydroxylations in VNVN motifs of ankyrin fold proteins. Journal of Biological Chemistry, 2022, 298, 102020.	3.4	4
72	Bioactivity of Extractives fromStachytarpheta urticaefolia. Pharmaceutical Biology, 2004, 42, 262-267.	2.9	3

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73	Conservation of the unusual dimeric JmjC fold of JMJD7 from Drosophila melanogaster to humans. Scientific Reports, 2022, 12, 6065.	3.3	3
74	Oxygenases for oxygen sensing. Pure and Applied Chemistry, 2008, 80, 1837-1847.	1.9	2
75	Corrigendum to â€œA new structural alternative in benzo[b]furans for antimicrobial activityâ€•[Bioorg. Med. Chem. 13 (2005) 4796â€“4805]. Bioorganic and Medicinal Chemistry, 2012, 20, 2189.	3.0	1
76	Human Oxygenase Variants Employing a Single Protein Fe II Ligand Are Catalytically Active. Angewandte Chemie, 2021, 133, 14778-14784.	2.0	0
77	Antibiotic principles from a Streptomyces species and their sub-acute toxicity studies on hepatic, renal and haemopoietic system of rats. Pakistan Journal of Pharmaceutical Sciences, 2005, 18, 1-7.	0.2	0