Angel L. Pey

List of Publications by Year
in descending order

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87 papers	2,737 citations	172386 29 h-index	214721 47 g-index
90 all docs	90 docs citations	90 times ranked	2763 citing authors

#	Article	IF	Citations
1	Targeting HIF-1Î± Function in Cancer through the Chaperone Action of NQO1: Implications of Genetic Diversity of NQO1. Journal of Personalized Medicine, 2022, 12, 747.	1.1	12
2	New salicylic acid derivatives, double inhibitors of glycolate oxidase and lactate dehydrogenase, as effective agents decreasing oxalate production. European Journal of Medicinal Chemistry, 2022, 237, 114396.	2.6	7
3	Allosteric Communication in the Multifunctional and Redox NQO1 Protein Studied by Cavity-Making Mutations. Antioxidants, 2022, 11, 1110.	2.2	12
4	Intrinsically disordered protein NUPR1 binds to the armadillo-repeat domain of Plakophilin 1. International Journal of Biological Macromolecules, 2021, 170, 549-560.	3.6	4
5	Galactosemia: Towards Pharmacological Chaperones. Journal of Personalized Medicine, 2021, 11, 106.	1.1	12
6	Dimerization Drives Proper Folding of Human Alanine:Glyoxylate Aminotransferase But Is Dispensable for Peroxisomal Targeting. Journal of Personalized Medicine, 2021, 11, 273.	1.1	5
7	Structural basis of the pleiotropic and specific phenotypic consequences of missense mutations in the multifunctional NAD(P)H:quinone oxidoreductase 1 and their pharmacological rescue. Redox Biology, 2021, 46, 102112.	3.9	22
8	A single evolutionarily divergent mutation determines the different FADâ€binding affinities of human and rat NQO1 due to siteâ€specific phosphorylation. FEBS Letters, 2021, 596, 29.	1.3	2
9	BANK1 interacts with TRAF6 and MyD88 in innate immune signaling in B cells. Cellular and Molecular Immunology, 2020, 17, 954-965.	4.8	28
10	Towards Accurate Genotypeâ€“Phenotype Correlations in the CYP2D6 Gene. Journal of Personalized Medicine, 2020, 10, 158.	1.1	4
11	Protein homeostasis and disease. , 2020, , 23-37.		2
12	The Catalytic Cycle of the Antioxidant and Cancer-Associated Human NQO1 Enzyme: Hydride Transfer, Conformational Dynamics and Functional Cooperativity. Antioxidants, 2020, 9, 772.	2.2	22
13	Naturally-Occurring Rare Mutations Cause Mild to Catastrophic Effects in the Multifunctional and Cancer-Associated NQO1 Protein. Journal of Personalized Medicine, 2020, 10, 207.	1.1	8
14	A Dynamic Core in Human NQO1 Controls the Functional and Stability Effects of Ligand Binding and Their Communication across the Enzyme Dimer. Biomolecules, 2019, 9, 728.	1.8	21
15	Warfarin increases thermal resistance of albumin through stabilization of the protein lobe that includes its binding site. Archives of Biochemistry and Biophysics, 2019, 676, 108123.	1.4	12
16	Systemic Alanine Glyoxylate Aminotransferase mRNA Improves Glyoxylate Metabolism in a Mouse Model of Primary Hyperoxaluria Type 1. Nucleic Acid Therapeutics, 2019, 29, 104-113.	2.0	12
17	NQO1: A target for the treatment of cancer and neurological diseases, and a model to understand loss of function disease mechanisms. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2019, 1867, 663-676.	1.1	68
18	Phosphorylation compromises FAD binding and intracellular stability of wild-type and cancer-associated NQO1: Insights into flavo-proteome stability. International Journal of Biological Macromolecules, 2019, 125, 1275-1288.	3.6	15

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19	Insight into the specificity and severity of pathogenic mechanisms associated with missense mutations through experimental and structural perturbation analyses. Human Molecular Genetics, 2019, 28, 1-15.	1.4	29
20	Anion-specific interaction with human NQO1 inhibits flavin binding. International Journal of Biological Macromolecules, 2019, 126, 1223-1233.	3.6	8
21	Structural and functional insights on the roles of molecular chaperones in the mistargeting and aggregation phenotypes associated with primary hyperoxaluria type I. Advances in Protein Chemistry and Structural Biology, 2019, 114, 119-152.	1.0	14
22	NAD(P)H quinone oxidoreductase (NQO1): an enzyme which needs just enough mobility, in just the right places. Bioscience Reports, 2019, 39, .	1.1	55
23	Improving the Activity and Stability of Human Galactokinase for Therapeutic and Biotechnological Applications. ChemBioChem, 2018, 19, 1088-1095.	1.3	8
24	Evolutionary Divergent Suppressor Mutations in Conformational Diseases. Genes, 2018, 9, 352.	1.0	12
25	Biophysical and functional perturbation analyses at cancer-associated P187 and K240 sites of the multifunctional NADP(H):quinone oxidoreductase 1. International Journal of Biological Macromolecules, 2018, 118, 1912-1923.	3.6	21
26	Second Generation of Mannich Base-Type Derivatives with in Vivo Activity against Trypanosoma cruzi. Journal of Medicinal Chemistry, 2018, 61, 5643-5663.	2.9	32
27	Site-to-site interdomain communication may mediate different loss-of-function mechanisms in a cancer-associated NQO1 polymorphism. Scientific Reports, 2017, 7, 44532.	1.6	35
28	Structural Basis of the Oncogenic Interaction of Phosphatase PRL-1 with the Magnesium Transporter CNNM2. Journal of Biological Chemistry, 2017, 292, 786-801.	1.6	48
29	Natural (and Unnatural) Small Molecules as Pharmacological Chaperones and Inhibitors in Cancer. Handbook of Experimental Pharmacology, 2017, 245, 155-190.	0.9	10
30	Enhanced vulnerability of human proteins towards disease-associated inactivation through divergent evolution. Human Molecular Genetics, 2017, 26, 3531-3544.	1.4	34
31	Intrinsically disordered chromatin protein NUPR1 binds to the C-terminal region of Polycomb RING1B. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6332-E6341.	3.3	39
32	A mechanism for cancerâ€associated inactivation of NQO1 due to P187S and its reactivation by the consensus mutation H80R. FEBS Letters, 2017, 591, 2826-2835.	1.3	21
33	Potential Pharmacological Chaperones for Cystathionine Beta-Synthase-Deficient Homocystinuria. Handbook of Experimental Pharmacology, 2017, 245, 345-383.	0.9	28
34	Thermodynamics of cooperative binding of FAD to human NQO1: Implications to understanding cofactor-dependent function and stability of the flavoproteome. Archives of Biochemistry and Biophysics, 2017, 636, 17-27.	1.4	26
35	Editorial (Thematic Issue: Targeting Conformational Diseases with Natural and Pharmacological) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.0	0
36	Caenorhabditis elegans AGXT-1 is a mitochondrial and temperature-adapted ortholog of peroxisomal human AGT1: New insights into between-species divergence in glyoxylate metabolism. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 1195-1205.	1.1	3

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37	Galactokinase promiscuity: a question of flexibility?. Biochemical Society Transactions, 2016, 44, 116-122.	1.6	14
38	The chondroitin sulfate/dermatan sulfate 4-O-endosulfatase from marine bacterium Vibrio sp FC509 is a dimeric species: Biophysical characterization of an endosulfatase. Biochimie, 2016, 131, 85-95.	1.3	9
39	Oligomeric status of human cystathionine betaâ€synthase modulates AdoMet binding. FEBS Letters, 2016, 590, 4461-4471.	1.3	8
40	Conformational dynamics is key to understanding loss-of-function of NQO1 cancer-associated polymorphisms and its correction by pharmacological ligands. Scientific Reports, 2016, 6, 20331.	1.6	39
41	Molecular basis of classic galactosemia from the structure of human galactose 1-phosphate uridylyltransferase. Human Molecular Genetics, 2016, 25, 2234-2244.	1.4	43
42	Experimental and computational evidence on conformational fluctuations as a source of catalytic defects in genetic diseases. RSC Advances, 2016, 6, 58604-58612.	1.7	8
43	Kinetic stability of cystathionine beta-synthase can be modulated by structural analogs of S-adenosylmethionine: Potential approach to pharmacological chaperone therapy for homocystinuria. Biochimie, 2016, 126, 6-13.	1.3	23
44	Natural Small Molecules as Stabilizers and Activators of Cancer-Associated NQO1 Polymorphisms. Current Drug Targets, 2016, 17, 1506-1514.	1.0	31
45	Targeting Cystathionine Beta-Synthase Misfolding in Homocystinuria by Small Ligands: State of the Art and Future Directions. Current Drug Targets, 2016, 17, 1455-1470.	1.0	30
46	Molecular Recognition of PTS-1 Cargo Proteins by Pex5p: Implications for Protein Mistargeting in Primary Hyperoxaluria. Biomolecules, 2015, 5, 121-141.	1.8	14
47	The consensus-based approach for gene/enzyme replacement therapies and crystallization strategies: the case of human alanineâ€“glyoxylate aminotransferase. Biochemical Journal, 2014, 462, 453-463.	1.7	30
48	The lower limits for protein stability and foldability in primary hyperoxaluria type I. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2355-2365.	1.1	20
49	FAD binding overcomes defects in activity and stability displayed by cancer-associated variants of human NQO1. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 2163-2173.	1.8	56
50	The metastability of human UDP-galactose 4â€²-epimerase (GALE) is increased by variants associated with type III galactosemia but decreased by substrate and cofactor binding. Archives of Biochemistry and Biophysics, 2014, 562, 103-114.	1.4	25
51	Insights into human phosphoglycerate kinase 1 deficiency as a conformational disease from biochemical, biophysical, and in vitro expression analyses. Journal of Inherited Metabolic Disease, 2014, 37, 909-916.	1.7	22
52	The role of surface electrostatics on the stability, function and regulation of human cystathionine Î²-synthase, a complex multidomain and oligomeric protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 1453-1462.	1.1	10
53	pH-dependent relationship between thermodynamic and kinetic stability in the denaturation of human phosphoglycerate kinase 1. Biochimie, 2014, 103, 7-15.	1.3	5
54	Domain Organization, Catalysis and Regulation of Eukaryotic Cystathionine Beta-Synthases. PLoS ONE, 2014, 9, e105290.	1.1	42

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55	Protein homeostasis disorders of key enzymes of amino acids metabolism: mutation-induced protein kinetic destabilization and new therapeutic strategies. Amino Acids, 2013, 45, 1331-1341.	1.2	21
56	The interplay between protein stability and dynamics in conformational diseases: The case of hPGK1 deficiency. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2502-2511.	1.1	12
57	Structural and Energetic Basis of Protein Kinetic Destabilization in Human Phosphoglycerate Kinase 1 Deficiency. Biochemistry, 2013, 52, 1160-1170.	1.2	26
58	Protein Homeostasis Defects of Alanine-Glyoxylate Aminotransferase: New Therapeutic Strategies in Primary Hyperoxaluria Type I. BioMed Research International, 2013, 2013, 1-15.	0.9	40
59	Human cystathionine Î²-synthase (CBS) contains two classes of binding sites for S-adenosylmethionine (SAM): complex regulation of CBS activity and stability by SAM. Biochemical Journal, 2013, 449, 109-121.	1.7	78
60	Protein Stability, Folding and Misfolding in Human PGK1 Deficiency. Biomolecules, 2013, 3, 1030-1052.	1.8	15
61	The Role of Protein Denaturation Energetics and Molecular Chaperones in the Aggregation and Mistargeting of Mutants Causing Primary Hyperoxaluria Type I. PLoS ONE, 2013, 8, e71963.	1.1	48
62	Primary hyperoxalurias: Disorders of glyoxylate detoxification. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 1453-1464.	1.8	124
63	Conformational Properties of Nine Purified Cystathionine Î²-Synthase Mutants. Biochemistry, 2012, 51, 4755-4763.	1.2	24
64	Divergence in enzyme regulation between Caenorhabditis elegans and human tyrosine hydroxylase, the key enzyme in the synthesis of dopamine. Biochemical Journal, 2011, 434, 133-141.	1.7	20
65	Role of low native state kinetic stability and interaction of partially unfolded states with molecular chaperones in the mitochondrial protein mistargeting associated with primary hyperoxaluria. Amino Acids, 2011, 41, 1233-1245.	1.2	54
66	The Regulatory Subunit of PKA-I Remains Partially Structured and Undergoes Î²-Aggregation upon Thermal Denaturation. PLoS ONE, 2011, 6, e17602.	1.1	11
67	Superstoichiometric binding of L-Phe to phenylalanine hydroxylase from Caenorhabditis elegans: evolutionary implications. Amino Acids, 2010, 39, 1463-1475.	1.2	14
68	Effect of pharmacological chaperones on brain tyrosine hydroxylase and tryptophan hydroxylase 2. Journal of Neurochemistry, 2010, 114, 853-863.	2.1	29
69	Modulation of Buried Ionizable Groups in Proteins with Engineered Surface Charge. Journal of the American Chemical Society, 2010, 132, 1218-1219.	6.6	31
70	Phenylalanine hydroxylase expression in primary rat hepatocytes is modulated by oxygen concentration. Molecular Genetics and Metabolism, 2010, 101, 279-281.	0.5	5
71	Iron binding effects on the kinetic stability and unfolding energetics of a thermophilic phenylalanine hydroxylase from Chloroflexus aurantiacus. Journal of Biological Inorganic Chemistry, 2009, 14, 521-531.	1.1	15
72	Biochemical characterization of mutant phenylalanine hydroxylase enzymes and correlation with clinical presentation in hyperphenylalaninaemic patients. Journal of Inherited Metabolic Disease, 2009, 32, 10-21.	1.7	27

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73	Engineering proteins with tunable thermodynamic and kinetic stabilities. Proteins: Structure, Function and Bioinformatics, 2008, 71, 165-174.	1.5	39
74	Anabolic function of phenylalanine hydroxylase inCaenorhabditis elegans. FASEB Journal, 2008, 22, 3046-3058.	0.2	27
75	Rescuing Proteins of Low Kinetic Stability by Chaperones and Natural Ligands: Phenylketonuria, a Case Study. Progress in Molecular Biology and Translational Science, 2008, 83, 89-134.	0.9	31
76	Thermoplasma acidophilum Cdc6 protein stimulates MCM helicase activity by regulating its ATPase activity. Nucleic Acids Research, 2008, 36, 5602-5609.	6.5	14
77	Identification of pharmacological chaperones as potential therapeutic agents to treat phenylketonuria. Journal of Clinical Investigation, 2008, 118, 2858-2867.	3.9	145
78	Structure of Phenylalanine Hydroxylase from Colwellia psychrerythraea 34H, a Monomeric Cold Active Enzyme with Local Flexibility around the Active Site and High Overall Stability. Journal of Biological Chemistry, 2007, 282, 21973-21986.	1.6	62
79	Tetrahydrobiopterin for patients with phenylketonuria. Lancet, The, 2007, 370, 462-463.	6.3	11
80	Predicted Effects of Missense Mutations on Native-State Stability Account for Phenotypic Outcome in Phenylketonuria, a Paradigm of Misfolding Diseases. American Journal of Human Genetics, 2007, 81, 1006-1024.	2.6	157
81	Specific interaction of the diastereomers 7(R)â€•and 7(S)â€tetrahydrobiopterin with phenylalanine hydroxylase: implications for understanding primapterinuria and vitiligo. FASEB Journal, 2006, 20, 2130-2132.	0.2	37
82	The activity of wild-type and mutant phenylalanine hydroxylase and its regulation by phenylalanine and tetrahydrobiopterin at physiological and pathological concentrations: An isothermal titration calorimetry study. Molecular Genetics and Metabolism, 2005, 86, 43-53.	0.5	30
83	From The Cover: Correction of kinetic and stability defects by tetrahydrobiopterin in phenylketonuria patients with certain phenylalanine hydroxylase mutations. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16903-16908.	3.3	156
84	Mechanisms underlying responsiveness to tetrahydrobiopterin in mild phenylketonuria mutations. Human Mutation, 2004, 24, 388-399.	1.1	109
85	Thermodynamic Characterization of the Binding of Tetrahydropterins to Phenylalanine HydroxylaseÂ§. Journal of the American Chemical Society, 2004, 126, 13670-13678.	6.6	36
86	Phenylketonuria: Genotype-phenotype correlations based on expression analysis of structural and functional mutations inPAH. Human Mutation, 2003, 21, 370-378.	1.1	111
87	Effects of prolonged stanozolol treatment on antioxidant enzyme activities, oxidative stress markers, and heat shock protein HSP72 levels in rat liver. Journal of Steroid Biochemistry and Molecular Biology, 2003, 87, 269-277.	1.2	56