Mark John Ingraham Paine

List of Publications by Year
in descending order

61 papers	3,623 citations	159573 30 h-index	138468 58 g-index
67 all docs	67 docs citations	67 times ranked	3239 citing authors

#	Article	IF	Citations
1	Role of cytochrome P450s in insecticide resistance: impact on the control of mosquito-borne diseases and use of insecticides on Earth. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120429.	4.0	305
2	Field-Caught Permethrin-Resistant Anopheles gambiae Overexpress CYP6P3, a P450 That Metabolises Pyrethroids. PLoS Genetics, 2008, 4, e1000286.	3.5	285
3	CYP6 P450 Enzymes and ACE-1 Duplication Produce Extreme and Multiple Insecticide Resistance in the Malaria Mosquito Anopheles gambiae. PLoS Genetics, 2014, 10, e1004236.	3.5	243
4	Cytochrome P450 6M2 from the malaria vector Anopheles gambiae metabolizes pyrethroids: Sequential metabolism of deltamethrin revealed. Insect Biochemistry and Molecular Biology, 2011, 41, 492-502.	2.7	217
5	Identification and validation of a gene causing cross-resistance between insecticide classes in Anopheles gambiae from Ghana. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6147-6152.	7.1	212
6	Structural model and functional characterization of the Bemisia tabaci CYP6CM1vQ, a cytochrome P450 associated with high levels of imidacloprid resistance. Insect Biochemistry and Molecular Biology, 2009, 39, 697-706.	2.7	204
7	Directionally selected cytochrome P450 alleles are driving the spread of pyrethroid resistance in the major malaria vector Anopheles funestus. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 252-257.	7.1	190
8	Processing of pro-tumor necrosis factor-Î± by venom metalloproteinases: A hypothesis explaining local tissue damage following snake bite. European Journal of Immunology, 1996, 26, 2000-2005.	2.9	131
9	Pinpointing P450s Associated with Pyrethroid Metabolism in the Dengue Vector, Aedes aegypti: Developing New Tools to Combat Insecticide Resistance. PLoS Neglected Tropical Diseases, 2012, 6, e1595.	3.0	122
10	Metabolic and Target-Site Mechanisms Combine to Confer Strong DDT Resistance in Anopheles gambiae. PLoS ONE, 2014, 9, e92662.	2.5	102
11	cDNA cloning and deduced amino acid sequence of prothrombin activator (ecarin) from Kenyan Echis carinatus venom. Biochemistry, 1995, 34, 1771-1778.	2.5	100
12	Antimalarial activity of primaquine operates via a two-step biochemical relay. Nature Communications, 2019, 10, 3226.	12.8	94
13	Residues Glutamate 216 and Aspartate 301 Are Key Determinants of Substrate Specificity and Product Regioselectivity in Cytochrome P450 2D6. Journal of Biological Chemistry, 2003, 278, 4021-4027.	3.4	93
14	Allelic Variation of Cytochrome P450s Drives Resistance to Bednet Insecticides in a Major Malaria Vector. PLoS Genetics, 2015, 11, e1005618.	3.5	80
15	Cloning and Characterization of a Novel Human Dual Flavin Reductase. Journal of Biological Chemistry, 2000, 275, 1471-1478.	3.4	79
16	Validation of Model of Cytochrome P450 2D6:â€‰ An in Silico Tool for Predicting Metabolism and Inhibition. Journal of Medicinal Chemistry, 2004, 47, 5340-5346.	6.4	78
17	DDT-based indoor residual spraying suboptimal for visceral leishmaniasis elimination in India. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8573-8578.	7.1	77
18	Pyriproxyfen is metabolized by P450s associated with pyrethroid resistance in An. gambiae. Insect Biochemistry and Molecular Biology, 2016, 78, 50-57.	2.7	74

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19	Phe120 contributes to the regiospecificity of cytochrome P450 2D6: mutation leads to the formation of a novel dextromethorphan metabolite. Biochemical Journal, 2004, 380, 353-360.	3.7	69
20	Cross-resistance profiles of malaria mosquito P450s associated with pyrethroid resistance against WHO insecticides. Pesticide Biochemistry and Physiology, 2019, 161, 61-67.	3.6	68
21	Why Is Quinidine an Inhibitor of Cytochrome P450 2D6?. Journal of Biological Chemistry, 2005, 280, 38617-38624.	3.4	63
22	IN SILICO AND IN VITRO SCREENING FOR INHIBITION OF CYTOCHROME P450 CYP3A4 BY COMEDICATIONS COMMONLY USED BY PATIENTS WITH CANCER. Drug Metabolism and Disposition, 2006, 34, 534-538.	3.3	58
23	Multiple Substrate Binding by Cytochrome P450 3A4: Estimation of the Number of Bound Substrate Molecules. Drug Metabolism and Disposition, 2008, 36, 2136-2144.	3.3	50
24	A cis-regulatory sequence driving metabolic insecticide resistance in mosquitoes: Functional characterisation and signatures of selection. Insect Biochemistry and Molecular Biology, 2012, 42, 699-707.	2.7	50
25	Cloning of Metalloprotease Genes in the Carpet Viper (Echis pyramidurm leakeyi). Further Members of the Metalloprotease/Disintegrin Gene Family. FEBS Journal, 1994, 224, 483-488.	0.2	47
26	IN SILICO PREDICTION OF DRUG BINDING TO CYP2D6: IDENTIFICATION OF A NEW METABOLITE OF METOCLOPRAMIDE. Drug Metabolism and Disposition, 2006, 34, 1386-1392.	3.3	41
27	Functional High Level Expression of Cytochrome P450 CYP2D6 Using Baculoviral Expression Systems. Archives of Biochemistry and Biophysics, 1996, 328, 143-150.	3.0	39
28	Determination of the redox potentials and electron transfer properties of the FAD- and FMN-binding domains of the human oxidoreductase NR1. FEBS Journal, 2003, 270, 1164-1175.	0.2	39
29	Differential Ability of Cytostatics From Anthraquinone Group to Generate Free Radicals in Three Enzymatic Systems: NADH Dehydrogenase, NADPH Cytochrome P450 Reductase, and Xanthine Oxidase. Oncology Research, 2003, 13, 245-252.	1.5	33
30	Pyrethroid activity-based probes for profiling cytochrome P450 activities associated with insecticide interactions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19766-19771.	7.1	33
31	Role of conserved Asp293 of cytochrome P450 2C9 in substrate recognition and catalytic activity. Biochemical Journal, 2003, 370, 921-926.	3.7	31
32	1H, 15N and 13C NMR resonance assignment, secondary structure and global fold of the FMN-binding domain of human cytochrome P450 reductase. Journal of Biomolecular NMR, 1997, 10, 63-75.	2.8	30
33	Expression, Purification, and Biochemical Characterization of A Human Cytochrome P450 CYP2D6-NADPH Cytochrome P450 Reductase Fusion Protein. Archives of Biochemistry and Biophysics, 2001, 396, 16-24.	3.0	29
34	Biochemical Comparison of Anopheles gambiae and Human NADPH P450 Reductases Reveals Different 2â€²-5â€²-ADP and FMN Binding Traits. PLoS ONE, 2011, 6, e20574.	2.5	26
35	Review and Meta-Analysis of the Evidence for Choosing between Specific Pyrethroids for Programmatic Purposes. Insects, 2021, 12, 826.	2.2	20
36	New insecticide screening platforms indicate that Mitochondrial Complex I inhibitors are susceptible to cross-resistance by mosquito P450s that metabolise pyrethroids. Scientific Reports, 2020, 10, 16232.	3.3	19

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37	Evaluating the feasibility of using insecticide quantification kits (IQK) for estimating cyanopyrethroid levels for indoor residual spraying in Vanuatu. Malaria Journal, 2014, 13, 178.	2.3	18
38	Rainbow tags: a visual tag system for recombinant protein expression and purification. BioTechniques, 2005, 38, 387-392.	1.8	15
39	Bioreductive activation of mitoxantrone by NADPH cytochrome P450 reductase. Implications for increasing its ability to inhibit the growth of sensitive and multidrug resistant leukaemia HL60 cells. Cancer Letters, 2007, 245, 252-262.	7.2	15
40	Role of the Conserved Phenylalanine 181 of NADPHâ"Cytochrome P450 Oxidoreductase in FMN Binding and Catalytic Activityâ€. Biochemistry, 2001, 40, 13439-13447.	2.5	14
41	Repurposing the orphan drug nitisinone to control the transmission of African trypanosomiasis. PLoS Biology, 2021, 19, e3000796.	5.6	12
42	Development of a Simple Dipstick Assay for Operational Monitoring of DDT. PLoS Neglected Tropical Diseases, 2016, 10, e0004324.	3.0	12
43	A simple glutathione transferase-based colorimetric endpoint assay for insecticide detection. Enzyme and Microbial Technology, 2009, 45, 164-168.	3.2	11
44	High concentrations of membrane-fed ivermectin are required for substantial lethal and sublethal impacts on Aedes aegypti. Parasites and Vectors, 2021, 14, 9.	2.5	11
45	Characterisation of Anopheles gambiae heme oxygenase and metalloporphyrin feeding suggests a potential role in reproduction. Insect Biochemistry and Molecular Biology, 2018, 98, 25-33.	2.7	9
46	Improving the performance of spray operators through monitoring and evaluation of insecticide concentrations of pirimiphos-methyl during indoor residual spraying for malaria control on Bioko Island. Malaria Journal, 2020, 19, 35.	2.3	9
47	Towards understanding transfluthrin efficacy in a pyrethroid-resistant strain of the malaria vector Anopheles funestus with special reference to cytochrome P450-mediated detoxification. Current Research in Parasitology and Vector-borne Diseases, 2021, 1, 100041.	1.9	7
48	High pyrethroid/DDT resistance in major malaria vector Anopheles coluzzii from Niger-Delta of Nigeria is probably driven by metabolic resistance mechanisms. PLoS ONE, 2021, 16, e0247944.	2.5	7
49	Development of a colourimetric pH assay for the quantification of pyrethroids based on glutathione-S-transferase. International Journal of Environmental Analytical Chemistry, 2010, 90, 922-933.	3.3	6
50	Role of structural factors of antitumour anthraquinone derivatives and analogues in the ability to undergo bioreductive activation by NADPH cytochrome P450 reductase. Implications for increasing the activity against sensitive and multidrug-resistant leukaemia HL60 cells. Anti-Cancer Drugs, 2012, 23, 393-405.	1.4	6
51	The role of bioreductive activation of antitumour anthracycline drugs in cytotoxic activity against sensitive and multidrug resistant leukaemia HL60 cells. European Journal of Pharmacology, 2012, 674, 112-125.	3.5	5
52	Fit for purpose: do we have the right tools to sustain NTD elimination?. BMC Proceedings, 2015, 9, S5.	1.6	5
53	Mass Drug Administration and beyond: how can we strengthen health systems to deliver complex interventions to eliminate neglected tropical diseases?. BMC Proceedings, 2015, 9, S7.	1.6	5
54	Indoor residual spraying practices against Triatoma infestans in the Bolivian Chaco: contributing factors to suboptimal insecticide delivery to treated households. Parasites and Vectors, 2021, 14, 327.	2.5	5

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55	Improving houses in the Bolivian Chaco increases effectiveness of residual insecticide spraying against infestation with Triatoma infestans, vector of Chagas disease. Tropical Medicine and International Health, 2021, 26, 1127-1138.	2.3	5
56	The Ability of New Sugar-Modified Derivatives of Antitumor Anthracycline, Daunorubicin, to Stimulate NAD(P)H Oxidation in Different Cellular Oxidoreductase Systems: NADH Dehydrogenase, NADPH Cytochrome P450 Reductase, and Xanthine Oxidase. Oncology Research, 2004, 14, 469-474.	1.5	4
57	Identification of a functionally impaired allele of human novel oxidoreductase 1 (NDOR1), NDOR1*1. Pharmacogenetics and Genomics, 2005, 15, 381-386.	1.5	4
58	Development of a rapid field-applicable molecular diagnostic for knockdown resistance (kdr) markers in An. gambiae. Parasites and Vectors, 2018, 11, 307.	2.5	3
59	Biochemical profiling of functionally expressed CYP6P9 variants of the malaria vector Anopheles funestus with special reference to cytochrome b5 and its role in pyrethroid and coumarin substrate metabolism. Pesticide Biochemistry and Physiology, 2022, 182, 105051.	3.6	3
60	Jararhagin. , 2013, , 987-990.		1
61	Ecarin. , 2013, , 1064-1067.		0