Matthew R Redinbo

List of Publications by Year
in descending order

119 papers	11,293 citations	30068 54 h-index	30081 103 g-index
121 all docs	121 docs citations	121 times ranked	10459 citing authors

#	Article	IF	Citations
1	Alleviating Cancer Drug Toxicity by Inhibiting a Bacterial Enzyme. Science, 2010, 330, 831-835.	12.6	800
2	The Human Nuclear Xenobiotic Receptor PXR: Structural Determinants of Directed Promiscuity. Science, 2001, 292, 2329-2333.	12.6	743
3	Symbiotic Bacterial Metabolites Regulate Gastrointestinal Barrier Function via the Xenobiotic Sensor PXR and Toll-like Receptor 4. Immunity, 2014, 41, 296-310.	14.3	708
4	A Model for the Mechanism of Human Topoisomerase I. Science, 1998, 279, 1534-1541.	12.6	660
5	The role of the microbiome in cancer development and therapy. Ca-A Cancer Journal for Clinicians, 2017, 67, 326-344.	329.8	447
6	Regulation ofCYP3AGene Transcription by the Pregnane X Receptor. Annual Review of Pharmacology and Toxicology, 2002, 42, 1-23.	9.4	322
7	2.1 Ã... Crystal Structure of Human PXR in Complex with the St. John's Wort Compound Hyperforinâ€,â€¡. Biochemistry, 2003, 42, 1430-1438.	2.5	312
8	Plant â€œhelperâ€•immune receptors are Ca ²⁺ -permeable nonselective cation channels. Science, 2021, 373, 420-425.	12.6	217
9	Coactivator Binding Promotes the Specific Interaction Between Ligand and the Pregnane X Receptor. Journal of Molecular Biology, 2003, 331, 815-828.	4.2	208
10	Structure and Inhibition of Microbiome Î²-Glucuronidases Essential to the Alleviation of Cancer Drug Toxicity. Chemistry and Biology, 2015, 22, 1238-1249.	6.0	203
11	Structural basis of heroin and cocaine metabolism by a promiscuous human drug-processing enzyme. Nature Structural and Molecular Biology, 2003, 10, 349-356.	8.2	195
12	Keynote review: Mammalian carboxylesterases: From drug targets to protein therapeutics. Drug Discovery Today, 2005, 10, 313-325.	6.4	190
13	Modulation of human nuclear receptor LRH-1 activity by phospholipids and SHP. Nature Structural and Molecular Biology, 2005, 12, 357-363.	8.2	189
14	Structural Disorder in the Complex of Human Pregnane X Receptor and the Macrolide Antibiotic Rifampicin. Molecular Endocrinology, 2005, 19, 1125-1134.	3.7	185
15	An Atlas of Î²-Glucuronidases in the Human Intestinal Microbiome. Structure, 2017, 25, 967-977.e5.	3.3	172
16	Reporting guidelines for human microbiome research: the STORMS checklist. Nature Medicine, 2021, 27, 1885-1892.	30.7	170
17	Crystal Structure of the Cofactor-Binding Domain of the Human Phase II Drug-Metabolism Enzyme UDP-Glucuronosyltransferase 2B7. Journal of Molecular Biology, 2007, 369, 498-511.	4.2	169
18	Pharmacologic Targeting of Bacterial Î²-Glucuronidase Alleviates Nonsteroidal Anti-Inflammatory Drug-Induced Enteropathy in Mice. Journal of Pharmacology and Experimental Therapeutics, 2012, 341, 447-454.	2.5	163

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19	Molecular basis for pH-dependent mucosal dehydration in cystic fibrosis airways. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15973-15978.	7.1	160
20	Gut microbial Î²-glucuronidases reactivate estrogens as components of the estrobolome that reactivate estrogens. Journal of Biological Chemistry, 2019, 294, 18586-18599.	3.4	157
21	Crystal Structure of Human Carboxylesterase 1 Complexed with the Alzheimer's Drug Tacrine. Chemistry and Biology, 2003, 10, 341-349.	6.0	155
22	Recommended nomenclature for five mammalian carboxylesterase gene families: human, mouse, and rat genes and proteins. Mammalian Genome, 2010, 21, 427-441.	2.2	147
23	Glucuronides in the gut: Sugar-driven symbioses between microbe and host. Journal of Biological Chemistry, 2017, 292, 8569-8576.	3.4	145
24	Structural insights into CPT-11 activation by mammalian carboxylesterases. Nature Structural Biology, 2002, 9, 337-342.	9.7	144
25	Novel Insights into Catalytic Mechanism from a Crystal Structure of Human Topoisomerase I in Complex with DNAâ€. Biochemistry, 2000, 39, 6832-6840.	2.5	140
26	Bacterial Î²-glucuronidase inhibition protects mice against enteropathy induced by indomethacin, ketoprofen or diclofenac: mode of action and pharmacokinetics. Xenobiotica, 2014, 44, 28-35.	1.1	135
27	Mechanisms of Camptothecin Resistance by Human Topoisomerase I Mutations. Journal of Molecular Biology, 2004, 339, 773-784.	4.2	129
28	The Nuclear Xenobiotic Receptor Pregnane X Receptor: Recent Insights and New Challenges. Molecular Endocrinology, 2005, 19, 2891-2900.	3.7	128
29	Multisite Promiscuity in the Processing of Endogenous Substrates by Human Carboxylesterase 1. Journal of Molecular Biology, 2006, 363, 201-214.	4.2	128
30	Structural Insights into Drug Processing by Human Carboxylesterase 1: Tamoxifen, Mevastatin, and Inhibition by Benzil. Journal of Molecular Biology, 2005, 352, 165-177.	4.2	124
31	Targeted inhibition of gut bacterial Î²-glucuronidase activity enhances anticancer drug efficacy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7374-7381.	7.1	121
32	Crystal structure of the PXRâ€“T1317 complex provides a scaffold to examine the potential for receptor antagonism. Bioorganic and Medicinal Chemistry, 2007, 15, 2156-2166.	3.0	117
33	Multiple NSAID-Induced Hits Injure the Small Intestine: Underlying Mechanisms and Novel Strategies. Toxicological Sciences, 2013, 131, 654-667.	3.1	110
34	The Phytoestrogen Coumestrol Is a Naturally Occurring Antagonist of the Human Pregnane X Receptor. Molecular Endocrinology, 2008, 22, 838-857.	3.7	107
35	Molecular Insights into MicrobialÎ²-Glucuronidase Inhibition to Abrogate CPT-11 Toxicity. Molecular Pharmacology, 2013, 84, 208-217.	2.3	105
36	Challenges Predicting Ligand-Receptor Interactions of Promiscuous Proteins: The Nuclear Receptor PXR. PLoS Computational Biology, 2009, 5, e1000594.	3.2	102

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37	Activated Pregnenolone X-Receptor Is a Target for Ketoconazole and Its Analogs. Clinical Cancer Research, 2007, 13, 2488-2495.	7.0	100
38	Structure and Function of the Human Nuclear Xenobiotic Receptor PXR. Current Drug Metabolism, 2005, 6, 357-367.	1.2	88
39	Crystal Structure of the Pregnane X Receptor-Estradiol Complex Provides Insights into Endobiotic Recognition. Molecular Endocrinology, 2007, 21, 1028-1038.	3.7	86
40	Structural Flexibility in Human Topoisomerase I Revealed in Multiple Non-isomorphous Crystal Structures. Journal of Molecular Biology, 1999, 292, 685-696.	4.2	81
41	PXR antagonists and implication in drug metabolism. Drug Metabolism Reviews, 2013, 45, 60-72.	3.6	80
42	Disrupting antibiotic resistance propagation by inhibiting the conjugative DNA relaxase. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12282-12287.	7.1	78
43	Identification of the SPLUNC1 ENaC-inhibitory domain yields novel strategies to treat sodium hyperabsorption in cystic fibrosis airway epithelial cultures. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2013, 305, L990-L1001.	2.9	71
44	8-Oxoguanine rearranges the active site of human topoisomerase I. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 12102-12107.	7.1	68
45	Orphan nuclear receptors adopted by crystallography. Current Opinion in Structural Biology, 2005, 15, 708-715.	5.7	66
46	The crystal structure of human UDP-glucuronosyltransferase 2B7 C-terminal end is the first mammalian UGT target to be revealed: the significance for human UGTs from both the 1A and 2B families. Drug Metabolism Reviews, 2010, 42, 133-144.	3.6	66
47	Structure, function, and inhibition of drug reactivating human gut microbial Î²-glucuronidases. Scientific Reports, 2019, 9, 825.	3.3	66
48	Structural insights into the function of type IB topoisomerases. Current Opinion in Structural Biology, 1999, 9, 29-36.	5.7	64
49	Gut-Derived Protein-Bound Uremic Toxins. Toxins, 2020, 12, 590.	3.4	64
50	Crystal Structures of Human Carboxylesterase 1 in Covalent Complexes with the Chemical Warfare Agents Soman and Tabun,. Biochemistry, 2007, 46, 5063-5071.	2.5	61
51	Pseudomonas aeruginosa PilY1 Binds Integrin in an RGD- and Calcium-Dependent Manner. PLoS ONE, 2011, 6, e29629.	2.5	60
52	Structural Basis of Human Pregnane X Receptor Activation by the Hops Constituent Colupulone. Molecular Pharmacology, 2008, 74, 1512-1520.	2.3	59
53	Elucidating the â€˜Jekyll and Hydeâ€™ Nature of PXR: The Case for Discovering Antagonists or Allosteric Antagonists. Pharmaceutical Research, 2009, 26, 1807-1815.	3.5	58
54	Xenobiotic-sensing nuclear receptors involved in drug metabolism: a structural perspective. Drug Metabolism Reviews, 2013, 45, 79-100.	3.6	58

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55	The human microbiome is a source of therapeutic drug targets. Current Opinion in Chemical Biology, 2013, 17, 379-384.	6.1	56
56	Human PXR Forms a Tryptophan Zipper-Mediated Homodimerâ€. Biochemistry, 2006, 45, 8579-8589.	2.5	55
57	Targeting the pregnane X receptor using microbial metabolite mimicry. EMBO Molecular Medicine, 2020, 12, e11621.	6.9	53
58	Gut Microbial Î²-Glucuronidase Inhibition via Catalytic Cycle Interception. ACS Central Science, 2018, 4, 868-879.	11.3	52
59	Structural and Functional Analysis of the Human Nuclear Xenobiotic Receptor PXR in Complex with RXRÎ±. Journal of Molecular Biology, 2013, 425, 2561-2577.	4.2	49
60	Human Carboxylesterase 1 Stereoselectively Binds the Nerve Agent Cyclosarin and Spontaneously Hydrolyzes the Nerve Agent Sarin. Molecular Pharmacology, 2010, 77, 508-516.	2.3	47
61	Three structurally and functionally distinct Î²-glucuronidases from the human gut microbe Bacteroides uniformis. Journal of Biological Chemistry, 2018, 293, 18559-18573.	3.4	47
62	Structural basis for the regulation of Î²-glucuronidase expression by human gut Enterobacteriaceae. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E152-E161.	7.1	46
63	Discovering the Microbial Enzymes Driving Drug Toxicity with Activity-Based Protein Profiling. ACS Chemical Biology, 2020, 15, 217-225.	3.4	46
64	Molecular basis of antibiotic multiresistance transfer in Staphylococcus aureus. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2804-2809.	7.1	44
65	Nonsteroidal Anti-Inflammatory Drug-Induced Leaky Gut Modeled Using Polarized Monolayers of Primary Human Intestinal Epithelial Cells. ACS Infectious Diseases, 2018, 4, 46-52.	3.8	44
66	The Microbiota, Chemical Symbiosis, and Human Disease. Journal of Molecular Biology, 2014, 426, 3877-3891.	4.2	42
67	Active Nuclear Receptors Exhibit Highly Correlated AF-2 Domain Motions. PLoS Computational Biology, 2008, 4, e1000111.	3.2	42
68	Structural Impact of the Leukemia Drug 1-à¥†-d-Arabinofuranosylcytosine (Ara-C) on the Covalent Human Topoisomerase I-DNA Complex. Journal of Biological Chemistry, 2003, 278, 12461-12466.	3.4	41
69	Targeting Regorafenib-Induced Toxicity through Inhibition of Gut Microbial Î²-Glucuronidases. ACS Chemical Biology, 2019, 14, 2737-2744.	3.4	41
70	Identification of BPIFA1/SPLUNC1 as an epithelium-derived smooth muscle relaxing factor. Nature Communications, 2017, 8, 14118.	12.8	39
71	Microbial enzymes induce colitis by reactivating triclosan in the mouse gastrointestinal tract. Nature Communications, 2022, 13, 136.	12.8	39
72	Analysis of Mammalian Carboxylesterase Inhibition by Trifluoromethylketone-Containing Compounds. Molecular Pharmacology, 2007, 71, 713-723.	2.3	38

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73	Structural insights into the promiscuity and function of the human pregnane X receptor. Current Opinion in Drug Discovery & Development, 2002, 5, 150-8.	1.9	38
74	Understanding and Modulating Mammalian-Microbial Communication for Improved Human Health. Annual Review of Pharmacology and Toxicology, 2014, 54, 559-580.	9.4	37
75	Structural Features Essential to the Antimicrobial Functions of Human SPLUNC1. Biochemistry, 2016, 55, 2979-2991.	2.5	36
76	Mouse Gut Microbiome-Encoded Î²-Glucuronidases Identified Using Metagenome Analysis Guided by Protein Structure. MSystems, 2019, 4, .	3.8	34
77	SPLUNC1 is an allosteric modulator of the epithelial sodium channel. FASEB Journal, 2018, 32, 2478-2491.	0.5	33
78	Mammalian short palate lung and nasal epithelial clone 1 (SPLUNC1) in pH-dependent airway hydration. International Journal of Biochemistry and Cell Biology, 2014, 52, 130-135.	2.8	30
79	Quantitative Investigation of Irinotecan Metabolism, Transport, and Gut Microbiome Activation. Drug Metabolism and Disposition, 2021, 49, 683-693.	3.3	30
80	Structural Insights into Endobiotic Reactivation by Human Gut Microbiome-Encoded Sulfatases. Biochemistry, 2020, 59, 3939-3950.	2.5	29
81	Crystal Structure of the Plant Epigenetic Protein Arginine Methyltransferase 10. Journal of Molecular Biology, 2011, 414, 106-122.	4.2	27
82	Garcinoic Acid Is a Natural and Selective Agonist of Pregnane X Receptor. Journal of Medicinal Chemistry, 2020, 63, 3701-3712.	6.4	27
83	Gut microbial Î²-glucuronidases regulate host luminal proteases and are depleted in irritable bowel syndrome. Nature Microbiology, 2022, 7, 680-694.	13.3	26
84	The mechanism and control of DNA transfer by the conjugative relaxase of resistance plasmid pCU1. Nucleic Acids Research, 2010, 38, 5929-5943.	14.5	25
85	Activation of the human nuclear xenobiotic receptor PXR by the reverse transcriptaseâ€targeted antiâ€HIV drug PNUâ€142721. Protein Science, 2011, 20, 1713-1719.	7.6	25
86	Post-translational Claisen Condensation and Decarboxylation en Route to the Bicyclic Core of Pantocin A. Journal of the American Chemical Society, 2016, 138, 5487-5490.	13.7	25
87	Promiscuity: what protects us, perplexes us. Drug Discovery Today, 2004, 9, 431-432.	6.4	21
88	New potential targets for antifungal development. Expert Opinion on Therapeutic Targets, 2000, 4, 265-296.	1.0	20
89	Regulation of drug metabolism and toxicity by multiple factors of genetics, epigenetics, lncRNAs, gut microbiota, and diseases: a meeting report of the 21st International Symposium on Microsomes and Drug Oxidations (MDO). Acta Pharmaceutica Sinica B, 2017, 7, 241-248.	12.0	20
90	Active site flexibility revealed in crystal structures of Parabacteroides merdae Î²â€glucuronidase from the human gut microbiome. Protein Science, 2018, 27, 2010-2022.	7.6	20

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91	Short Palate, Lung, and Nasal Epithelial Clone 1 Has Antimicrobial and Antibiofilm Activities against the Burkholderia cepacia Complex. Antimicrobial Agents and Chemotherapy, 2016, 60, 6003-6012.	3.2	19
92	Nerve Agent Hydrolysis Activity Designed into a Human Drug Metabolism Enzyme. PLoS ONE, 2011, 6, e17441.	2.5	19
93	A High Throughput Assay for Discovery of Bacterial Î²-Glucuronidase Inhibitors. Current Chemical Genomics, 2011, 5, 13-20.	2.0	19
94	Rifampicin-Independent Interactions between the Pregnane X Receptor Ligand Binding Domain and Peptide Fragments of Coactivator and Corepressor Proteins. Biochemistry, 2012, 51, 19-31.	2.5	18
95	Acetylation of lysine 109 modulates pregnane X receptor DNA binding and transcriptional activity. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2016, 1859, 1155-1169.	1.9	18
96	Processing of Nonconjugative Resistance Plasmids by Conjugation Nicking Enzyme of Staphylococci. Journal of Bacteriology, 2016, 198, 888-897.	2.2	18
97	Microbial Glucuronidase Inhibition Reduces Severity of Diclofenac-Induced Anastomotic Leak in Rats. Surgical Infections, 2018, 19, 417-423.	1.4	18
98	Discovery and Characterization of FMN-Binding Î²-Glucuronidases in the Human Gut Microbiome. Journal of Molecular Biology, 2019, 431, 970-980.	4.2	18
99	Molecular Modeling of CPT-11 Metabolism by Carboxylesterases (CEs):â€‰ Use of pnb CE as a Model. Biochemistry, 2004, 43, 1874-1882.	2.5	17
100	Functional Characterization of the Multidomain F Plasmid TraI Relaxase-Helicase. Journal of Biological Chemistry, 2011, 286, 12670-12682.	3.4	16
101	Enterococcus faecalis Gluconate Phosphotransferase System Accelerates Experimental Colitis and Bacterial Killing by Macrophages. Infection and Immunity, 2019, 87, .	2.2	14
102	Selecting a Single Stereocenter: The Molecular Nuances That Differentiate Î²-Hexuronidases in the Human Gut Microbiome. Biochemistry, 2019, 58, 1311-1317.	2.5	12
103	Immobilization of active human carboxylesterase 1 in biomimetic silica nanoparticles. Biotechnology Progress, 2011, 27, 863-869.	2.6	11
104	A structural metagenomics pipeline for examining the gut microbiome. Current Opinion in Structural Biology, 2022, 75, 102416.	5.7	10
105	Enhanced biofilm prevention activity of a SPLUNC1-derived antimicrobial peptide against Staphylococcus aureus. PLoS ONE, 2018, 13, e0203621.	2.5	8
106	Epithelial delamination is protective during pharmaceutical-induced enteropathy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16961-16970.	7.1	8
107	Tyrosine partners coordinate DNA nicking by theSalmonella typhimuriumplasmid pCU1 relaxase enzyme. FEBS Letters, 2011, 585, 1216-1222.	2.8	7
108	The Gut Microbiota Impact Cancer Etiology through â€œPhase IV Metabolismâ€•of Xenobiotics and Endobiotics. Cancer Prevention Research, 2020, 13, 635-642.	1.5	7

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109	Microbial Unmasking of Plant Glycosides. MBio, 2018, 9, .	4.1	6
110	In Fimo: A Term Proposed for Excrement Examined Experimentally. Gastroenterology, 2019, 156, 1232.	1.3	6
111	A Rare Mutation in SPLUNC1 Affects Bacterial Adherence and Invasion in Meningococcal Disease. Clinical Infectious Diseases, 2020, 70, 2045-2053.	5.8	6
112	Microbial Molecules from the Multitudes within Us. Cell Metabolism, 2017, 25, 230-232.	16.2	3
113	Identification of Specific and Nonspecific Inhibitors of Bacillus anthracis Typeâ€…III Pantothenate Kinase (PanK). ChemMedChem, 2019, 14, 78-82.	3.2	3
114	Crystal structure of the mouse innate immunity factor bacterial permeability-increasing family member A1. Acta Crystallographica Section F, Structural Biology Communications, 2018, 74, 268-276.	0.8	2
115	The Microbiome Revolution Turns to Cholesterol. Cell Host and Microbe, 2020, 28, 154-156.	11.0	2
116	A structural examination of agrochemical processing by human carboxylesterase 1. Journal of Pesticide Sciences, 2010, 35, 250-256.	1.4	1
117	Proteomicsâ€‐Informed Scaling of Irinotecan Metabolism, Transport, and Gut Microbial Activation Explain its Intestinal Toxicity after Intravenous Dose. FASEB Journal, 2021, 35, .	0.5	0
118	Pharmaceutical Control of the Microbiome. FASEB Journal, 2015, 29, 575.13.	0.5	0
119	Pharmaceutical Control of the Microbiome. FASEB Journal, 2015, 29, 494.2.	0.5	0