

Frederick J Ehlert

List of Publications by Year in descending order

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87
papers

3,134
citations

159585

30
h-index

161849

54
g-index

88
all docs

88
docs citations

88
times ranked

1926
citing authors

#	ARTICLE	IF	CITATIONS
1	The binding of [3H]nitrendipine to receptors for calcium channel antagonists in the heart, cerebral cortex, and ileum of rats. <i>Life Sciences</i> , 1982, 30, 2191-2202.	4.3	221
2	International Union of Basic and Clinical Pharmacology. XC. Multisite Pharmacology: Recommendations for the Nomenclature of Receptor Allosterism and Allosteric Ligands. <i>Pharmacological Reviews</i> , 2014, 66, 918-947.	16.0	189
3	The interaction of [3H]nitrendipine with receptors for calcium antagonists in the cerebral cortex and heart of rats. <i>Biochemical and Biophysical Research Communications</i> , 1982, 104, 937-943.	2.1	182
4	Analysis of Allosterism in Functional Assays. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2005, 315, 740-754.	2.5	150
5	Estimation of Agonist Activity at G Protein-Coupled Receptors: Analysis of M2 Muscarinic Receptor Signaling through Gi/o, Gs, and G15. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2007, 321, 1193-1207.	2.5	115
6	An allosteric model for benzodiazepine receptor function. <i>Biochemical Pharmacology</i> , 1983, 32, 2375-2383.	4.4	101
7	Human urotensin II mediates vasoconstriction via an increase in inositol phosphates. <i>European Journal of Pharmacology</i> , 2000, 406, 265-271.	3.5	99
8	SUBTYPES OF THE MUSCARINIC RECEPTOR IN SMOOTH MUSCLE. <i>Life Sciences</i> , 1997, 61, 1729-1740.	4.3	95
9	Contractile role of M2 and M3 muscarinic receptors in gastrointestinal, airway and urinary bladder smooth muscle. <i>Life Sciences</i> , 2003, 74, 355-366.	4.3	87
10	Functional analysis of muscarinic acetylcholine receptors using knockout mice. <i>Life Sciences</i> , 2004, 75, 2971-2981.	4.3	80
11	Contractile role of M2 and M3 muscarinic receptors in gastrointestinal smooth muscle. <i>Life Sciences</i> , 1999, 64, 387-394.	4.3	79
12	The M2 Muscarinic Receptor Mediates Contraction through Indirect Mechanisms in Mouse Urinary Bladder. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2005, 313, 368-378.	2.5	79
13	Multiple benzodiazepine receptors and their regulation by γ -aminobutyric. <i>Life Sciences</i> , 1981, 29, 235-248.	4.3	78
14	On the analysis of ligand-directed signaling at G protein-coupled receptors. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2008, 377, 549-577.	3.0	78
15	A Novel Method for Analyzing Extremely Biased Agonism at G Protein-Coupled Receptors. <i>Molecular Pharmacology</i> , 2015, 87, 866-877.	2.3	69
16	Muscarinic receptor binding in rat brain using the agonist, [3H]cis methylpiperazine. <i>Life Sciences</i> , 1980, 26, 961-967.	4.3	68
17	The influence of guanylyl imidodiphosphate and sodium on muscarinic receptor binding in the rat brain and longitudinal muscle of the rat ileum. <i>Life Sciences</i> , 1980, 26, 245-252.	4.3	67
18	Increased Relaxant Action of Forskolin and Isoproterenol against Muscarinic Agonist-Induced Contractions in Smooth Muscle from M2 Receptor Knockout Mice. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2003, 305, 106-113.	2.5	65

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19	Selectivity of Agonists for the Active State of M ₁ to M ₄ Muscarinic Receptor Subtypes. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2009, 328, 331-342.	2.5	65
20	Regulation of muscarinic receptor binding by guanine nucleotides and N-ethylmaleimide. <i>Journal of Supramolecular Structure</i> , 1980, 14, 149-162.	2.3	61
21	Modulation of benzodiazepine receptor binding: Insight into pharmacological efficacy. <i>European Journal of Pharmacology</i> , 1982, 78, 249-253.	3.5	50
22	â€œInverse agonistsâ€™, cooperativity and drug action at benzodiazepine receptors. <i>Trends in Pharmacological Sciences</i> , 1986, 7, 28-32.	8.7	46
23	Estimation of Relative Microscopic Affinity Constants of Agonists for the Active State of the Receptor in Functional Studies on M2 and M3 Muscarinic Receptors. <i>Molecular Pharmacology</i> , 2009, 75, 381-396.	2.3	42
24	Muscarinic receptor subsensitivity in the longitudinal muscle of the rat ileum following chronic anticholinesterase treatment with diisopropylfluorophosphate. <i>Biochemical Pharmacology</i> , 1980, 29, 1391-1397.	4.4	40
25	Î³-Aminobutyric acid regulation of the benzodiazepine receptor: biochemical evidence for pharmacologically different effects of benzodiazepines and propyl Î²-carboline-3-carboxylate. <i>European Journal of Pharmacology</i> , 1981, 70, 593-595.	3.5	40
26	Involvement of the M2 muscarinic receptor in contractions of the guinea pig trachea, guinea pig esophagus, and rat fundus. <i>Biochemical Pharmacology</i> , 1996, 51, 779-788.	4.4	40
27	PDE8 Is Expressed in Human Airway Smooth Muscle and Selectively Regulates cAMP Signaling by Î² ₂ -Adrenergic Receptors and Adenylyl Cyclase 6. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2018, 58, 530-541.	2.9	39
28	Functional role of M2 muscarinic receptors in the guinea pig ileum. <i>Life Sciences</i> , 1995, 56, 965-971.	4.3	37
29	Differential regulation of muscarinic agonist binding sites following chronic cholinesterase inhibition. <i>European Journal of Pharmacology</i> , 1980, 66, 379-380.	3.5	35
30	Neuronally Released Acetylcholine Acts on the M2 Muscarinic Receptor to Oppose the Relaxant Effect of Isoproterenol on Cholinergic Contractions in Mouse Urinary Bladder. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2007, 322, 631-637.	2.5	33
31	Intrinsic relative activities of Î² opioid agonists in activating GÎ± proteins and internalizing receptor: Differences between human and mouse receptors. <i>European Journal of Pharmacology</i> , 2015, 761, 235-244.	3.5	32
32	Muscarinic Agonists and Antagonists: Effects on Gastrointestinal Function. <i>Handbook of Experimental Pharmacology</i> , 2012, , 343-374.	1.8	31
33	Striatal muscarinic receptors: Regulation by dopaminergic agonists. <i>Life Sciences</i> , 1981, 28, 2441-2448.	4.3	29
34	Stimulation of cyclic AMP accumulation and phosphoinositide hydrolysis by M3 muscarinic receptors in the rat peripheral lung. <i>Biochemical Pharmacology</i> , 1996, 52, 643-658.	4.4	29
35	Analysis of Agonism and Inverse Agonism in Functional Assays with Constitutive Activity: Estimation of Orthosteric Ligand Affinity Constants for Active and Inactive Receptor States. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 338, 671-686.	2.5	29
36	Functional studies cast light on receptor states. <i>Trends in Pharmacological Sciences</i> , 2015, 36, 596-604.	8.7	29

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37	Muscarinic cholinergic receptor heterogeneity. <i>Trends in Neurosciences</i> , 1982, 5, 336-339.	8.6	25
38	Two-State Models and the Analysis of the Allosteric Effect of Gallamine at the M2 Muscarinic Receptor. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 325, 1039-1060.	2.5	25
39	Pharmacological Analysis of the Contractile Role of M2 and M3 Muscarinic Receptors in Smooth Muscle. <i>Receptors and Channels</i> , 2003, 9, 261-277.	1.1	25
40	Muscarinic receptors and novel strategies for the treatment of age-related brain disorders. <i>Life Sciences</i> , 1994, 55, 2135-2145.	4.3	24
41	The interaction of 4-DAMP mustard with subtypes of the muscarinic receptor. <i>Life Sciences</i> , 1996, 58, 1971-1978.	4.3	24
42	A Conserved Motif in the Membrane Proximal C-Terminal Tail of Human Muscarinic M1 Acetylcholine Receptors Affects Plasma Membrane Expression. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2010, 332, 76-86.	2.5	22
43	Relation between behaviorally augmented tolerance and upregulation of muscarinic receptors in the CNS: Effects of chronic administration of scopolamine. <i>Psychopharmacology</i> , 1986, 88, 33-39.	3.1	21
44	Differential Coupling of Muscarinic M1, M2, and M3 Receptors to Phosphoinositide Hydrolysis in Urinary Bladder and Longitudinal Muscle of the Ileum of the Mouse. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2006, 318, 649-656.	2.5	21
45	Comparison of the pharmacological antagonism of M2 and M3 muscarinic receptors expressed in isolation and in combination. <i>Biochemical Pharmacology</i> , 2003, 65, 1227-1241.	4.4	20
46	Muscarinic Agonist-Mediated Heterologous Desensitization in Isolated Ileum Requires Activation of Both Muscarinic M2 and M3 Receptors. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2004, 308, 339-349.	2.5	20
47	Tertiary (2-haloethyl)amine derivatives of the muscarinic agent McN-A-343, [4-[[N-(3-chlorophenyl)carbamoyl]oxy]-2-butynyl]trimethylammonium chloride. <i>Journal of Medicinal Chemistry</i> , 1990, 33, 281-286.	6.4	19
48	The influence of guanylyl imidodiphosphate and sodium chloride on the binding of the muscarinic agonist, [3H] cis methylidioxolane. <i>European Journal of Pharmacology</i> , 1980, 61, 317-318.	3.5	18
49	The influence of temperature and gamma-aminobutyric acid on benzodiazepine receptor subtypes in the hippocampus of the rat. <i>Biochemical and Biophysical Research Communications</i> , 1982, 106, 1134-1140.	2.1	17
50	Analysis of Biased Agonism. <i>Progress in Molecular Biology and Translational Science</i> , 2018, 160, 63-104.	1.7	17
51	Comparison of Pharmacological Properties between the Kappa Opioid Receptor Agonist Nalfurafine and 42B, Its 3-Dehydroxy Analogue: Disconnect between <i>in Vitro</i> Agonist Bias and <i>in Vivo</i> Pharmacological Effects. <i>ACS Chemical Neuroscience</i> , 2020, 11, 3036-3050.	3.5	17
52	Functional role of muscarinic M2 receptors in Ca^{2+} -methylene ATP induced, neurogenic contractions in guinea-pig ileum. <i>British Journal of Pharmacology</i> , 2000, 129, 1458-1464.	5.4	16
53	A simple and rapid radio-receptor assay for the estimation of acetylcholine. <i>Life Sciences</i> , 1982, 31, 347-354.	4.3	13
54	Analysis of Functional Responses at G Protein-Coupled Receptors: Estimation of Relative Affinity Constants for the Inactive Receptor State. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 338, 658-670.	2.5	13

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55	Estimation of ligand affinity constants for receptor states in functional studies involving the allosteric modulation of G protein-coupled receptors: Implications for ligand bias. <i>Journal of Pharmacological and Toxicological Methods</i> , 2014, 69, 253-279.	0.7	13
56	Pharmacological Analysis of the Contractile Role of M ₂ and M ₃ Muscarinic Receptors in Smooth Muscle. <i>Receptors and Channels</i> , 2003, 9, 261-277.	1.1	12
57	Pharmacological analysis of the contractile role of M ₂ and M ₃ muscarinic receptors in smooth muscle. <i>Receptors and Channels</i> , 2003, 9, 261-77.	1.1	10
58	Muscarinic M ₁ receptors stimulate phosphoinositide hydrolysis in bovine cerebral arteries. <i>Life Sciences</i> , 1990, 47, 2163-2169.	4.3	9
59	The use of irreversible ligands to inactivate receptor subtypes: 4-DAMP mustard and muscarinic receptors in smooth muscle. <i>Life Sciences</i> , 1998, 62, 1659-1664.	4.3	9
60	Characterization of Muscarinic Receptors in the Human Bladder Mucosa: Direct Quantification of Subtypes Using 4-DAMP Mustard. <i>Urology</i> , 2011, 78, 721.e7-721.e12.	1.0	9
61	The guinea pig ileum lacks the direct, high-potency, M ₂ -muscarinic, contractile mechanism characteristic of the mouse ileum. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2009, 380, 327-335.	3.0	8
62	Mutagenesis of Nucleophilic Residues near the Orthosteric Binding Pocket of M ₁ and M ₂ Muscarinic receptors: Effect on the Binding of Nitrogen Mustard Analogs of Acetylcholine and McN-A-343. <i>Molecular Pharmacology</i> , 2010, 78, 745-755.	2.3	8
63	Effects of Asparagine Mutagenesis of Conserved Aspartic Acids in Helix 2 (D2.50) and 3 (D3.32) of M ₁ and M ₄ Muscarinic Receptors on the Irreversible Binding of Nitrogen Mustard Analogs of Acetylcholine and McN-A-343. <i>Biochemistry</i> , 2013, 52, 4914-4928.	2.5	8
64	A kinetic model of GPCRs: analysis of G protein activity, occupancy, coupling and receptor-state affinity constants. <i>Journal of Receptor and Signal Transduction Research</i> , 2015, 35, 269-283.	2.5	8
65	The Nature of Muscarinic Receptor Binding. , 1983, , 241-283.		8
66	Comparison of the Antimuscarinic Action of p-Fluorohexahydrosiladifenidol in Ileal and Tracheal Smooth Muscle. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2005, 312, 592-600.	2.5	7
67	Determination of the rate of muscarinic M ₁ receptor plasma membrane delivery using a regulated secretion/aggregation system. <i>Journal of Pharmacological and Toxicological Methods</i> , 2006, 53, 219-233.	0.7	7
68	Use of Acetylcholine Mustard to Study Allosteric Interactions at the M ₂ Muscarinic Receptor. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 327, 518-528.	2.5	7
69	Cysteine Pairs in the Third Intracellular Loop of the Muscarinic M ₁ Acetylcholine Receptor Play a Role in Agonist-Induced Internalization. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2008, 324, 196-205.	2.5	6
70	Investigating the interaction of McN-A-343 with the M ₂ muscarinic receptor using its nitrogen mustard derivative. <i>Biochemical Pharmacology</i> , 2010, 79, 1025-1035.	4.4	6
71	Quantifying Agonist Activity at G Protein-Coupled Receptors. <i>Journal of Visualized Experiments</i> , 2011, , e3179.	0.3	6
72	Heterogeneity of Benzodiazepine Receptors. , 1984, , 575-593.		6

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73	Correlation between the Binding Parameters of Muscarinic Agonists and their Inhibition of Adenylate Cyclase Activity. <i>Advances in Experimental Medicine and Biology</i> , 1988, 236, 265-276.	1.6	5
74	Cooperativity Has Empirical and Ultimate Levels of Explanation. <i>Trends in Pharmacological Sciences</i> , 2016, 37, 620-623.	8.7	4
75	Quantitating Ligand Bias Using the Competitive Model of Ligand Activity. <i>Methods in Molecular Biology</i> , 2019, 1957, 235-247.	0.9	4
76	Estimation of the receptor-state affinity constants of ligands in functional studies using wild type and constitutively active mutant receptors: Implications for estimation of agonist bias. <i>Journal of Pharmacological and Toxicological Methods</i> , 2017, 83, 94-106.	0.7	3
77	A comparison of the effects of cinnarizine and related compounds on [3H]nitrendipine binding in the brain, heart and ileum. <i>Life Sciences</i> , 1984, 34, 2347-2355.	4.3	2
78	What Ligand-Gated Ion Channels Can Tell Us About the Allosteric Regulation of G Protein-Coupled Receptors. <i>Progress in Molecular Biology and Translational Science</i> , 2013, 115, 291-347.	1.7	2
79	Using In Vitro Mutagenesis to Characterize Structure-Function Relationships in G Protein-Coupled Receptors. <i>Methods in Pharmacology and Toxicology</i> , 2014, , 177-195.	0.2	1
80	Quantifying GPCR allostery and biased signaling. , 2020, , 143-169.		0
81	Expression and localization of adenylyl cyclases and G protein-coupled receptors in guinea pig ileum caveolae and lipid rafts. <i>FASEB Journal</i> , 2007, 21, A792.	0.5	0
82	McNâ€¢343 directs signaling through the M ₂ muscarinic receptorâ€¢15 complex relative to that of G _i . <i>FASEB Journal</i> , 2007, 21, A430.	0.5	0
83	Use of Intrinsic Relative Activity to determine agonist dependent G-protein signaling at the M4 muscarinic receptor. <i>FASEB Journal</i> , 2007, 21, A424.	0.5	0
84	A simple method for estimation of agonist activity at GPCRs: characterization of responses elicited by M ₂ and M ₃ muscarinic receptors. <i>FASEB Journal</i> , 2008, 22, 724.10.	0.5	0
85	Effect of streptozotocin on neurogenic M ₂ and M ₃ muscarinic receptor-mediated contractions in mouse urinary bladder. <i>FASEB Journal</i> , 2010, 24, 579.6.	0.5	0
86	MUSCARINIC RECEPTOR [3H]LIGAND BINDING METHODS. , 1984, , 339-355.		0
87	Comparison of agonist occupancy of M ₂ muscarinic receptorâ€¢G protein complexes in myocardial homogenates with functional estimates of active receptor-state affinity in isolated atria. <i>FASEB Journal</i> , 2018, 32, 555.20.	0.5	0