

# Stuart A Forman

## List of Publications by Year in descending order

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73  
papers

3,273  
citations

147726

31  
h-index

149623

56  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2236  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Actions of Inhaled Anesthetics. <i>New England Journal of Medicine</i> , 2003, 348, 2110-2124.	13.9	710
2	Clinical and Molecular Pharmacology of Etomidate. <i>Anesthesiology</i> , 2011, 114, 695-707.	1.3	238
3	Azo-Propofols: Photochromic Potentiators of GABA <sub>A</sub> Receptors. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10500-10504.	7.2	124
4	Methoxycarbonyl-etomidate. <i>Anesthesiology</i> , 2009, 111, 240-249.	1.3	108
5	Gating Allosterism at a Single Class of Etomidate Sites on $\alpha 1\beta 2\gamma 2L$ GABA <sub>A</sub> Receptors Accounts for Both Direct Activation and Agonist Modulation. <i>Journal of Biological Chemistry</i> , 2004, 279, 20982-20992.	1.6	107
6	Anesthetic sites and allosteric mechanisms of action on Cys-loop ligand-gated ion channels. <i>Canadian Journal of Anaesthesia</i> , 2011, 58, 191-205.	0.7	90
7	Carboetomidate. <i>Anesthesiology</i> , 2010, 112, 637-644.	1.3	88
8	2-(3-Methyl-3H-diaziren-3-yl)ethyl 1-(1-phenylethyl)-1H-imidazole-5-carboxylate: A Derivative of the Stereoselective General Anesthetic Etomidate for Photolabeling Ligand-Gated Ion Channels. <i>Journal of Medicinal Chemistry</i> , 2003, 46, 1257-1265.	2.9	83
9	Coupled and Uncoupled Gating and Desensitization Effects by Pore Domain Mutations in GABA <sub>A</sub> Receptors. <i>Journal of Neuroscience</i> , 2002, 22, 8411-8421.	1.7	74
10	Tryptophan Mutations at Azi-Etomidate Photo-Incorporation Sites on $\alpha 1$ or $\beta 2$ Subunits Enhance GABA <sub>A</sub> Receptor Gating and Reduce Etomidate Modulation. <i>Molecular Pharmacology</i> , 2008, 74, 1687-1695.	1.0	73
11	Mechanisms of general anesthesia: from molecules to mind. <i>Bailliere's Best Practice and Research in Clinical Anaesthesiology</i> , 2005, 19, 349-364.	1.7	69
12	Classic Benzodiazepines Modulate the Open-Close Equilibrium in $\alpha 1\beta 2\gamma 2L$ $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2005, 102, 783-792.	1.3	67
13	Mapping General Anesthetic Sites in Heteromeric $\gamma$ -Aminobutyric Acid Type A Receptors Reveals a Potential For Targeting Receptor Subtypes. <i>Anesthesia and Analgesia</i> , 2016, 123, 1263-1273.	1.1	64
14	An Allosteric Coagonist Model for Propofol Effects on $\alpha 1\beta 2\gamma 2L$ $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2012, 116, 47-55.	1.3	58
15	$\gamma$ -Amino Butyric Acid Type A Receptor Mutations at $\beta 2N265$ Alter Etomidate Efficacy While Preserving Basal and Agonist-dependent Activity. <i>Anesthesiology</i> , 2009, 111, 774-784.	1.3	55
16	Molecular sites of anesthetic action in postsynaptic nicotinic membranes. <i>Trends in Pharmacological Sciences</i> , 1989, 10, 447-452.	4.0	53
17	Gating-enhanced Accessibility of Hydrophobic Sites within the Transmembrane Region of the Nicotinic Acetylcholine Receptor's $\beta$ -Subunit. <i>Journal of Biological Chemistry</i> , 2005, 280, 13631-13640.	1.6	47
18	Differential Effects of Serotonin and Dopamine on Human 5-HT <sub>3A</sub> Receptor Kinetics: Interpretation within an Allosteric Kinetic Model. <i>Journal of Neuroscience</i> , 2007, 27, 13151-13160.	1.7	46

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19	Allylm-Trifluoromethyl diazine Mephobarbital: An Unusually Potent Enantioselective and Photoreactive Barbiturate General Anesthetic. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 6554-6565.	2.9	46
20	General Anesthetics and Molecular Mechanisms of Unconsciousness. <i>International Anesthesiology Clinics</i> , 2008, 46, 43-53.	0.3	45
21	Synthesis and Properties of 3-(2-Hydroxyethyl)-3-n-pentyl diazine, a Photoactivable General Anesthetic. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 3300-3307.	2.9	43
22	Synthesis of Trifluoromethylaryl Diazine and Benzophenone Derivatives of Etomidate that Are Potent General Anesthetics and Effective Photolabels for Probing Sites on Ligand-Gated Ion Channels. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 4818-4825.	2.9	43
23	Monodâ€Wymanâ€Changeux allosteric mechanisms of action and the pharmacology of etomidate. <i>Current Opinion in Anaesthesiology</i> , 2012, 25, 411-418.	0.9	42
24	The n-Alcohol Site in the Nicotinic Receptor Pore Is a Hydrophobic Patch. <i>Biochemistry</i> , 2000, 39, 14920-14926.	1.2	41
25	Propofol Is an Allosteric Agonist with Multiple Binding Sites on Concatemeric Ternary GABA<sub>A</sub> Receptors. <i>Molecular Pharmacology</i> , 2018, 93, 178-189.	1.0	41
26	Highâ€level expression and purification of Cysâ€loop ligandâ€gated ion channels in a tetracyclineâ€inducible stable mammalian cell line: GABA<sub>A</sub> and serotonin receptors. <i>Protein Science</i> , 2010, 19, 1728-1738.	3.1	40
27	Anesthetics target interfacial transmembrane sites in nicotinic acetylcholine receptors. <i>Neuropharmacology</i> , 2015, 96, 169-177.	2.0	38
28	Novel Modulation of a Nicotinic Receptor Channel Mutant Reveals that the Open State Is Stabilized by Ethanol. <i>Molecular Pharmacology</i> , 1999, 55, 102-108.	1.0	37
29	Pharmacological Studies of Methoxycarbonyl Etomidateâ€™s Carboxylic Acid Metabolite. <i>Anesthesia and Analgesia</i> , 2012, 115, 305-308.	1.1	36
30	<i>p</i>-(4-Azipentyl)propofol: A Potent Photoreactive General Anesthetic Derivative of Propofol. <i>Journal of Medicinal Chemistry</i> , 2011, 54, 8124-8135.	2.9	35
31	Tryptophan and Cysteine Mutations in M1 Helices of Î±1Î²3Î³2L Î³-Aminobutyric Acid Type A Receptors Indicate Distinct Intersubunit Sites for Four Intravenous Anesthetics and One Orphan Site. <i>Anesthesiology</i> , 2016, 125, 1144-1158.	1.3	35
32	General Anesthetic and Specific Effects of Ethanol on Acetylcholine Receptors. <i>Annals of the New York Academy of Sciences</i> , 1987, 492, 71-87.	1.8	31
33	A Hydrophobic Photolabel Inhibits Nicotinic Acetylcholine Receptors via Open-Channel Block Following a Slow Step. <i>Biochemistry</i> , 1999, 38, 14559-14564.	1.2	31
34	Mutations at Beta N265 in Î³-Aminobutyric Acid Type A Receptors Alter Both Binding Affinity and Efficacy of Potent Anesthetics. <i>PLoS ONE</i> , 2014, 9, e111470.	1.1	30
35	Is agonist self-inhibition at the nicotinic acetylcholine receptor a nonspecific action?. <i>Biochemistry</i> , 1987, 26, 2807-2814.	1.2	29
36	Time-Resolved Photolabeling of the Nicotinic Acetylcholine Receptor by [ <sup>3</sup> H]Azietomidate, an Open-State Inhibitor. <i>Molecular Pharmacology</i> , 2009, 75, 1084-1095.	1.0	29

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37	Cysteine Substitutions Define Etomidate Binding and Gating Linkages in the $\alpha$ -M1 Domain of $\gamma$ -Aminobutyric Acid Type A (GABAA) Receptors. <i>Journal of Biological Chemistry</i> , 2013, 288, 30373-30386.	1.6	25
38	p-Trifluoromethyl diazirinyl-etomidate: A Potent Photoreactive General Anesthetic Derivative of Etomidate That Is Selective for Ligand-Gated Cationic Ion Channels. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 6432-6444.	2.9	24
39	Alphaxalone Binds in Inner Transmembrane $\alpha$ - $\beta$ Interfaces of $\alpha$ - $\beta$ $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2018, 128, 338-351.	1.3	24
40	State-Dependent Etomidate Occupancy of Its Allosteric Agonist Sites Measured in a Cysteine-Substituted GABA <sub>A</sub> Receptor. <i>Molecular Pharmacology</i> , 2013, 83, 1200-1208.	1.0	23
41	Photo-activated Azi-Etomidate, a General Anesthetic Photolabel, Irreversibly Enhances Gating and Desensitization of $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2008, 108, 103-112.	1.3	23
42	Two Etomidate Sites in $\alpha$ - $\beta$ $\gamma$ -Aminobutyric Acid Type A Receptors Contribute Equally and Noncooperatively to Modulation of Channel Gating. <i>Anesthesiology</i> , 2012, 116, 1235-1244.	1.3	23
43	Nonhalogenated Anesthetic Alkanes and Perhalogenated Nonimmobilizing Alkanes Inhibit $\alpha$ -4 $\beta$ 2 Neuronal Nicotinic Acetylcholine Receptors. <i>Anesthesia and Analgesia</i> , 2002, 95, 573-577.	1.1	22
44	Correction for Inhibition Leads to an Allosteric Co-Agonist Model for Pentobarbital Modulation and Activation of $\alpha$ -1 $\beta$ 2 $\gamma$ 2L GABAA Receptors. <i>PLoS ONE</i> , 2016, 11, e0154031.	1.1	21
45	Procaine rapidly inactivates acetylcholine receptor from Torpedo and competes with agonist for inhibition sites. <i>Biochemistry</i> , 1989, 28, 1678-1685.	1.2	20
46	Comparison of $\alpha$ -1 $\beta$ and $\alpha$ -1 $\beta$ GABAA receptors: Allosteric modulation and identification of subunit arrangement by site-selective general anesthetics. <i>Pharmacological Research</i> , 2018, 133, 289-300.	3.1	20
47	Nicotinic Receptor Pore Mutations Create a Sensitive Inhibitory Site for Ethanol. <i>Alcoholism: Clinical and Experimental Research</i> , 2000, 24, 1363-1368.	1.4	18
48	Photoactivated 3-Aziocanol Irreversibly Desensitizes Muscle Nicotinic ACh Receptors via Interactions at $\alpha$ -E262. <i>Biochemistry</i> , 2007, 46, 11911-11918.	1.2	18
49	Monod-Wyman-Changeux Allosteric Shift Analysis in Mutant $\alpha$ -1 $\beta$ 3 $\gamma$ 2L GABA <sub>A</sub> Receptors Indicates Selectivity and Crosstalk among Intersubunit Transmembrane Anesthetic Sites. <i>Molecular Pharmacology</i> , 2019, 95, 408-417.	1.0	18
50	Molecular Approaches to Improving General Anesthetics. <i>Anesthesiology Clinics</i> , 2010, 28, 761-771.	0.6	15
51	Mutations in the GABAA Receptor that Mimic the Allosteric Ligand Etomidate. <i>Methods in Molecular Biology</i> , 2012, 796, 317-333.	0.4	15
52	A Cysteine Substitution Probes $\alpha$ -3H267 Interactions with Propofol and Other Potent Anesthetics in $\alpha$ -1 $\beta$ 2 $\gamma$ 2L $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2016, 124, 89-100.	1.3	13
53	Synthesis and pharmacological evaluation of neurosteroid photoaffinity ligands. <i>European Journal of Medicinal Chemistry</i> , 2017, 136, 334-347.	2.6	12
54	The Nicotinic Acetylcholine Receptor in Its Membrane Environment. <i>Annals of the New York Academy of Sciences</i> , 1991, 625, 600-614.	1.8	9

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55	Novel positive allosteric modulators of GABAA receptors with anesthetic activity. <i>Scientific Reports</i> , 2016, 6, 25943.	1.6	9
56	Contrasting actions of a convulsant barbiturate and its anticonvulsant enantiomer on the $\alpha 1\alpha 2\alpha 3$ GABA <sub>A</sub> receptor account for their <i>in vivo</i> effects. <i>Journal of Physiology</i> , 2015, 593, 4943-4961.	1.3	8
57	Etomidate Effects on Desensitization and Deactivation of $\alpha 4\beta 3$ GABAA Receptors Inducibly Expressed in HEK293 TetR Cells. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2019, 368, 100-105.	1.3	8
58	Selective actions of benzodiazepines at the transmembrane anaesthetic binding sites of the GABA <sub>A</sub> receptor: <i>in vitro</i> and <i>in vivo</i> studies. <i>British Journal of Pharmacology</i> , 2021, 178, 4842-4858.	2.7	8
59	Inhibitable photolabeling by neurosteroid diazirine analog in the $\beta 3$ -Subunit of human heteropentameric type A GABA receptors. <i>European Journal of Medicinal Chemistry</i> , 2019, 162, 810-824.	2.6	7
60	Competitive Antagonism of Etomidate Action by Diazepam. <i>Anesthesiology</i> , 2020, 133, 583-594.	1.3	7
61	Awareness during general anesthesia: concepts and controversies. <i>Seminars in Anesthesia</i> , 2006, 25, 211-218.	0.3	6
62	Direct interactions of anesthetics and nonanesthetics with the nicotinic acetylcholine receptor pore. <i>Toxicology Letters</i> , 1998, 100-101, 169-178.	0.4	5
63	Butanol effects on $\beta$ -amino butyric acid concentration-responses in human $\alpha 1\beta 2\beta 2L$ $\beta$ -amino butyric acid type A receptors with a mutation at $\alpha 1S270$ . <i>Neuroscience Letters</i> , 2001, 297, 179-182.	1.0	5
64	Combining Mutations and Electrophysiology to Map Anesthetic Sites on Ligand-Gated Ion Channels. <i>Methods in Enzymology</i> , 2018, 602, 369-389.	0.4	5
65	A potent photoreactive general anesthetic with novel binding site selectivity for GABAA receptors. <i>European Journal of Medicinal Chemistry</i> , 2020, 194, 112261.	2.6	3
66	Irreversible modulation of GABAA receptors by azi-etomidate, a photo-reactive general anesthetic. <i>International Congress Series</i> , 2005, 1283, 271-272.	0.2	1
67	Substituted Cysteine Modification and Protection with n-Alkyl- Methanethiosulfonate Reagents Yields a Precise Estimate of the Distance between Etomidate and a Residue in Activated GABA Type A Receptors. <i>Molecular Pharmacology</i> , 2021, 99, 426-434.	1.0	1
68	Nicotinic Receptor Pore Mutations Create a Sensitive Inhibitory Site for Ethanol. , 2000, 24, 1363.		1
69	Interpreting the impact of GABAA receptor structural modifications using an allosteric co-agonist mechanism for etomidate actions. <i>International Congress Series</i> , 2005, 1283, 288-289.	0.2	0
70	Equilibrium and kinetic allosteric mechanisms for anesthetic and structure function studies of GABAA receptors. <i>International Congress Series</i> , 2005, 1283, 32-37.	0.2	0
71	In Reply. <i>Anesthesiology</i> , 2013, 119, 996-996.	1.3	0
72	Research at the Harvard Anesthesia Departments. <i>Anesthesiology</i> , 2014, 121, 1141-1143.	1.3	0

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73	$\hat{\gamma}^3$ -Aminobutyric Acid Type A Receptor Subtypes and Circuit Connections in Midazolam-induced Amnesia, Sedation, and Hypnosis. <i>Anesthesiology</i> , 2022, 136, 880-882.	1.3	0