

# Stuart A Forman

## List of Publications by Year in descending order

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73  
papers

3,273  
citations

147801

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149698

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74  
all docs

74  
docs citations

74  
times ranked

2236  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Actions of Inhaled Anesthetics. New England Journal of Medicine, 2003, 348, 2110-2124.	27.0	710
2	Clinical and Molecular Pharmacology of Etomidate. Anesthesiology, 2011, 114, 695-707.	2.5	238
3	Azo-Propofols: Photochromic Potentiators of GABA <sub>A</sub> Receptors. Angewandte Chemie - International Edition, 2012, 51, 10500-10504.	13.8	124
4	Methoxycarbonyl-etomidate. Anesthesiology, 2009, 111, 240-249.	2.5	108
5	Gating Allosterism at a Single Class of Etomidate Sites on $\alpha 1\beta 2\gamma 2L$ GABAA Receptors Accounts for Both Direct Activation and Agonist Modulation. Journal of Biological Chemistry, 2004, 279, 20982-20992.	3.4	107
6	Anesthetic sites and allosteric mechanisms of action on Cys-loop ligand-gated ion channels. Canadian Journal of Anaesthesia, 2011, 58, 191-205.	1.6	90
7	Carboetomidate. Anesthesiology, 2010, 112, 637-644.	2.5	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. Journal of Medicinal Chemistry, 2003, 46, 1257-1265.	6.4	83
9	Coupled and Uncoupled Gating and Desensitization Effects by Pore Domain Mutations in GABA <sub>A</sub> Receptors. Journal of Neuroscience, 2002, 22, 8411-8421.	3.6	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. Molecular Pharmacology, 2008, 74, 1687-1695.	2.3	73
11	Mechanisms of general anesthesia: from molecules to mind. Bailliere's Best Practice and Research in Clinical Anaesthesiology, 2005, 19, 349-364.	4.0	69
12	Classic Benzodiazepines Modulate the Open-Close Equilibrium in $\alpha 1\beta 2\gamma 2L\beta 3$ -Aminobutyric Acid Type A Receptors. Anesthesiology, 2005, 102, 783-792.	2.5	67
13	Mapping General Anesthetic Sites in Heteromeric $\beta 3$ -Aminobutyric Acid Type A Receptors Reveals a Potential For Targeting Receptor Subtypes. Anesthesia and Analgesia, 2016, 123, 1263-1273.	2.2	64
14	An Allosteric Coagonist Model for Propofol Effects on $\alpha 1\beta 2\gamma 2L\beta 3$ -Aminobutyric Acid Type A Receptors. Anesthesiology, 2012, 116, 47-55.	2.5	58
15	$\beta 3$ -Amino Butyric Acid Type A Receptor Mutations at $\beta 2N265$ Alter Etomidate Efficacy While Preserving Basal and Agonist-dependent Activity. Anesthesiology, 2009, 111, 774-784.	2.5	55
16	Molecular sites of anesthetic action in postsynaptic nicotinic membranes. Trends in Pharmacological Sciences, 1989, 10, 447-452.	8.7	53
17	Gating-enhanced Accessibility of Hydrophobic Sites within the Transmembrane Region of the Nicotinic Acetylcholine Receptor's $\beta$ -Subunit. Journal of Biological Chemistry, 2005, 280, 13631-13640.	3.4	47
18	Differential Effects of Serotonin and Dopamine on Human 5-HT <sub>3A</sub> Receptor Kinetics: Interpretation within an Allosteric Kinetic Model. Journal of Neuroscience, 2007, 27, 13151-13160.	3.6	46

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19	Allylm-Trifluoromethyldiazirine Mephobarbital: An Unusually Potent Enantioselective and Photoreactive Barbiturate General Anesthetic. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 6554-6565.	6.4	46
20	General Anesthetics and Molecular Mechanisms of Unconsciousness. <i>International Anesthesiology Clinics</i> , 2008, 46, 43-53.	0.8	45
21	Synthesis and Properties of 3-(2-Hydroxyethyl)-3-n-pentyldiazirine, a Photoactivable General Anesthetic. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 3300-3307.	6.4	43
22	Synthesis of Trifluoromethylaryl Diazirine 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.	6.4	43
23	Monodâ€Wymanâ€Changeux allosteric mechanisms of action and the pharmacology of etomidate. <i>Current Opinion in Anaesthesiology</i> , 2012, 25, 411-418.	2.0	42
24	The n-Alcohol Site in the Nicotinic Receptor Pore Is a Hydrophobic Patch. <i>Biochemistry</i> , 2000, 39, 14920-14926.	2.5	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.	2.3	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.	7.6	40
27	Anesthetics target interfacial transmembrane sites in nicotinic acetylcholine receptors. <i>Neuropharmacology</i> , 2015, 96, 169-177.	4.1	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.	2.3	37
29	Pharmacological Studies of Methoxycarbonyl Etomidateâ€™s Carboxylic Acid Metabolite. <i>Anesthesia and Analgesia</i> , 2012, 115, 305-308.	2.2	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.	6.4	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.	2.5	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.	3.8	31
33	A Hydrophobic Photolabel Inhibits Nicotinic Acetylcholine Receptors via Open-Channel Block Following a Slow Step. <i>Biochemistry</i> , 1999, 38, 14559-14564.	2.5	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.	2.5	30
35	Is agonist self-inhibition at the nicotinic acetylcholine receptor a nonspecific action?. <i>Biochemistry</i> , 1987, 26, 2807-2814.	2.5	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.	2.3	29

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37	Cysteine Substitutions Define Etomidate Binding and Gating Linkages in the $\alpha 1$ -M1 Domain of $\gamma$ -Aminobutyric Acid Type A (GABAA) Receptors. <i>Journal of Biological Chemistry</i> , 2013, 288, 30373-30386.	3.4	25
38	p-Trifluoromethyldiaziriny-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.	6.4	24
39	Alphaxalone Binds in Inner Transmembrane $\alpha 1$ - $\alpha 2$ Interfaces of $\alpha 1\alpha 2\gamma 2$ $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2018, 128, 338-351.	2.5	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.	2.3	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.	2.5	23
42	Two Etomidate Sites in $\alpha 1\alpha 2\gamma 2$ $\gamma$ -Aminobutyric Acid Type A Receptors Contribute Equally and Noncooperatively to Modulation of Channel Gating. <i>Anesthesiology</i> , 2012, 116, 1235-1244.	2.5	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.	2.2	22
44	Correction for Inhibition Leads to an Allosteric Co-Agonist Model for Pentobarbital Modulation and Activation of $\alpha 1\beta 3\gamma 2$ L GABAA Receptors. <i>PLoS ONE</i> , 2016, 11, e0154031.	2.5	21
45	Procaine rapidly inactivates acetylcholine receptor from Torpedo and competes with agonist for inhibition sites. <i>Biochemistry</i> , 1989, 28, 1678-1685.	2.5	20
46	Comparison of $\alpha 1\alpha 2$ and $\alpha 1\alpha 3$ GABAA receptors: Allosteric modulation and identification of subunit arrangement by site-selective general anesthetics. <i>Pharmacological Research</i> , 2018, 133, 289-300.	7.1	20
47	Nicotinic Receptor Pore Mutations Create a Sensitive Inhibitory Site for Ethanol. <i>Alcoholism: Clinical and Experimental Research</i> , 2000, 24, 1363-1368.	2.4	18
48	Photoactivated 3-Aziocetanol Irreversibly Desensitizes Muscle Nicotinic ACh Receptors via Interactions at $\alpha 2$ E262. <i>Biochemistry</i> , 2007, 46, 11911-11918.	2.5	18
49	Monod-Wyman-Changeux Allosteric Shift Analysis in Mutant $\alpha 1\alpha 3\gamma 2$ L GABA <sub>A</sub> Receptors Indicates Selectivity and Crosstalk among Intersubunit Transmembrane Anesthetic Sites. <i>Molecular Pharmacology</i> , 2019, 95, 408-417.	2.3	18
50	Molecular Approaches to Improving General Anesthetics. <i>Anesthesiology Clinics</i> , 2010, 28, 761-771.	1.4	15
51	Mutations in the GABAA Receptor that Mimic the Allosteric Ligand Etomidate. <i>Methods in Molecular Biology</i> , 2012, 796, 317-333.	0.9	15
52	A Cysteine Substitution Probes $\alpha 2$ H267 Interactions with Propofol and Other Potent Anesthetics in $\alpha 1\alpha 2\gamma 2$ L $\gamma$ -Aminobutyric Acid Type A Receptors. <i>Anesthesiology</i> , 2016, 124, 89-100.	2.5	13
53	Synthesis and pharmacological evaluation of neurosteroid photoaffinity ligands. <i>European Journal of Medicinal Chemistry</i> , 2017, 136, 334-347.	5.5	12
54	The Nicotinic Acetylcholine Receptor in Its Membrane Environment. <i>Annals of the New York Academy of Sciences</i> , 1991, 625, 600-614.	3.8	9

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55	Novel positive allosteric modulators of GABAA receptors with anesthetic activity. Scientific Reports, 2016, 6, 25943.	3.3	9
56	Contrasting actions of a convulsant barbiturate and its anticonvulsant enantiomer on the $\alpha 1\beta 3\gamma 2$ GABA <sub>A</sub> receptor account for their <i>in vivo</i> effects. Journal of Physiology, 2015, 593, 4943-4961.	2.9	8
57	Etomidate Effects on Desensitization and Deactivation of $\alpha 4\beta 3\gamma$ GABAA Receptors Inducibly Expressed in HEK293 TetR Cells. Journal of Pharmacology and Experimental Therapeutics, 2019, 368, 100-105.	2.5	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. British Journal of Pharmacology, 2021, 178, 4842-4858.	5.4	8
59	Inhibitable photolabeling by neurosteroid diazirine analog in the $\beta 3$ -Subunit of human heteropentameric type A GABA receptors. European Journal of Medicinal Chemistry, 2019, 162, 810-824.	5.5	7
60	Competitive Antagonism of Etomidate Action by Diazepam. Anesthesiology, 2020, 133, 583-594.	2.5	7
61	Awareness during general anesthesia: concepts and controversies. Seminars in Anesthesia, 2006, 25, 211-218.	0.3	6
62	Direct interactions of anesthetics and nonanesthetics with the nicotinic acetylcholine receptor pore. Toxicology Letters, 1998, 100-101, 169-178.	0.8	5
63	Butanol effects on $\beta$ -amino butyric acid concentration-responses in human $\alpha 1\beta 2\gamma 2\beta$ $\beta$ -amino butyric acid type A receptors with a mutation at $\alpha 1$ S270. Neuroscience Letters, 2001, 297, 179-182.	2.1	5
64	Combining Mutations and Electrophysiology to Map Anesthetic Sites on Ligand-Gated Ion Channels. Methods in Enzymology, 2018, 602, 369-389.	1.0	5
65	A potent photoreactive general anesthetic with novel binding site selectivity for GABAA receptors. European Journal of Medicinal Chemistry, 2020, 194, 112261.	5.5	3
66	Irreversible modulation of GABAA receptors by azi-etomidate, a photo-reactive general anesthetic. International Congress Series, 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. Molecular Pharmacology, 2021, 99, 426-434.	2.3	1
68	Nicotinic Receptor Pore Mutations Create a Sensitive Inhibitory Site for Ethanol. Alcoholism: Clinical and Experimental Research, 2000, 24, 1363-1368.	2.4	1
69	Interpreting the impact of GABAA receptor structural modifications using an allosteric co-agonist mechanism for etomidate actions. International Congress Series, 2005, 1283, 288-289.	0.2	0
70	Equilibrium and kinetic allosteric mechanisms for anesthetic and structure function studies of GABAA receptors. International Congress Series, 2005, 1283, 32-37.	0.2	0
71	In Reply. Anesthesiology, 2013, 119, 996-996.	2.5	0
72	Research at the Harvard Anesthesia Departments. Anesthesiology, 2014, 121, 1141-1143.	2.5	0

#	ARTICLE	IF	CITATIONS
73	Î³-Aminobutyric Acid Type A Receptor Subtypes and Circuit Connections in Midazolam-induced Amnesia, Sedation, and Hypnosis. Anesthesiology, 2022, 136, 880-882.	2.5	0