

# Denis B Tikhonov

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92 papers	1,962 citations	28 h-index	41 g-index
98 ext. papers	2,202 ext. citations	3.6 avg, IF	5.09 L-index

#	Paper	IF	Citations
92	Modulation of Slow Desensitization (Tachyphylaxis) of Acid-Sensing Ion Channel (ASIC)1a.. <i>Cellular and Molecular Neurobiology</i> , <b>2022</b> , 1	4.6	0
91	Molecular mechanisms of action determine inhibition of paroxysmal depolarizing shifts by NMDA receptor antagonists in rat cortical neurons. <i>Neuropharmacology</i> , <b>2021</b> , 184, 108443	5.5	3
90	Optical Control of -Methyl-d-aspartate Receptors by Azobenzene Quaternary Ammonium Compounds. <i>ACS Chemical Neuroscience</i> , <b>2021</b> , 12, 3347-3357	5.7	1
89	Phenylalkylamines in calcium channels: computational analysis of experimental structures. <i>Journal of Computer-Aided Molecular Design</i> , <b>2020</b> , 34, 1157-1169	4.2	2
88	The pore domain in glutamate-gated ion channels: Structure, drug binding and similarity with potassium channels. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2020</b> , 1862, 183401	3.8	4
87	Intersegment contacts determine geometry of the open and closed states in P-loop channels. <i>Journal of Biomolecular Structure and Dynamics</i> , <b>2020</b> , 38, 1012-1027	3.6	3
86	Extremely Potent Block of Bacterial Voltage-Gated Sodium Channels by $\mu$ -Conotoxin PIIIA. <i>Marine Drugs</i> , <b>2019</b> , 17,	6	8
85	Hydrophobic Amines and Their Guanidine Analogues Modulate Activation and Desensitization of ASIC3. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	3
84	Lidocaine and carbamazepine inhibit while phenytoin and lamotrigine paradoxically enhance the insect neuromuscular transmission. <i>Invertebrate Neuroscience</i> , <b>2019</b> , 19, 4	1.2	2
83	Ligand Docking to the Acidic Pocket of the Proton-Gated Ion Channel Asic1A. <i>Doklady Biochemistry and Biophysics</i> , <b>2019</b> , 485, 111-114	0.8	
82	Batrachotoxin acts as a stent to hold open homotetrameric prokaryotic voltage-gated sodium channels. <i>Journal of General Physiology</i> , <b>2019</b> , 151, 186-199	3.4	11
81	Multiple modes of action of hydrophobic amines and their guanidine analogues on ASIC1a. <i>European Journal of Pharmacology</i> , <b>2019</b> , 844, 183-194	5.3	3
80	Modulation of Proton-Gated Channels by Antidepressants. <i>ACS Chemical Neuroscience</i> , <b>2019</b> , 10, 1636-1648	5.7	4
79	Potentiation and Block of ASIC1a by Memantine. <i>Cellular and Molecular Neurobiology</i> , <b>2018</b> , 38, 869-881	4.6	6
78	Optical control of L-type Ca channels using a diltiazem photoswitch. <i>Nature Chemical Biology</i> , <b>2018</b> , 14, 764-767	11.7	23
77	Predicting Structural Details of the Sodium Channel Pore Basing on Animal Toxin Studies. <i>Frontiers in Pharmacology</i> , <b>2018</b> , 9, 880	5.6	16
76	3D Structures and Molecular Evolution of Ion Channels <b>2018</b> ,		1

75	Mutational analysis of state-dependent contacts in the pore module of eukaryotic sodium channels. <i>Archives of Biochemistry and Biophysics</i> , <b>2018</b> , 652, 59-70	4.1	4
74	Inhibition of the NMDA and AMPA receptor channels by antidepressants and antipsychotics. <i>Brain Research</i> , <b>2017</b> , 1660, 58-66	3.7	34
73	Mechanism of sodium channel block by local anesthetics, antiarrhythmics, and anticonvulsants. <i>Journal of General Physiology</i> , <b>2017</b> , 149, 465-481	3.4	55
72	Complex action of tyramine, tryptamine and histamine on native and recombinant ASICs. <i>Channels</i> , <b>2017</b> , 11, 648-659	3	6
71	Conservation and variability of the pore-lining helices in P-loop channels. <i>Channels</i> , <b>2017</b> , 11, 660-672	3	4
70	Ligands of histamine receptors modulate acid-sensing ion channels. <i>Biochemical and Biophysical Research Communications</i> , <b>2017</b> , 490, 1314-1318	3.4	11
69	TRPV1 activation power can switch an action mode for its polypeptide ligands. <i>PLoS ONE</i> , <b>2017</b> , 12, e0173977	3.7	22
68	Histamine selectively potentiates acid-sensing ion channel 1a. <i>Neuroscience Letters</i> , <b>2016</b> , 632, 136-40	3.3	19
67	Computational Structural Pharmacology and Toxicology of Voltage-Gated Sodium Channels. <i>Current Topics in Membranes</i> , <b>2016</b> , 78, 117-44	2.2	11
66	Determinants of action of hydrophobic amines on ASIC1a and ASIC2a. <i>European Journal of Pharmacology</i> , <b>2016</b> , 788, 75-83	5.3	10
65	Analysis of inter-residue contacts reveals folding stabilizers in P-loops of potassium, sodium, and TRPV channels. <i>European Biophysics Journal</i> , <b>2016</b> , 45, 321-9	1.9	6
64	Modeling interactions between blocking and permeant cations in the NavMs channel. <i>European Journal of Pharmacology</i> , <b>2016</b> , 780, 188-93	5.3	2
63	Molecular evolution of ion channels: Amino acid sequences and 3D structures. <i>Journal of Evolutionary Biochemistry and Physiology</i> , <b>2016</b> , 52, 28-36	0.5	
62	Non-classical mechanism of $\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor channel block by fluoxetine. <i>European Journal of Neuroscience</i> , <b>2015</b> , 41, 869-77	3.5	4
61	Statistical models suggest presence of two distinct subpopulations of miniature EPSCs in fast-spiking interneurons of rat prefrontal cortex. <i>Neuroscience</i> , <b>2015</b> , 301, 508-19	3.9	5
60	Monoamine NMDA receptor channel blockers inhibit and potentiate native and recombinant proton-gated ion channels. <i>Neuropharmacology</i> , <b>2015</b> , 89, 1-10	5.5	24
59	State-dependent inter-repeat contacts of exceptionally conserved asparagines in the inner helices of sodium and calcium channels. <i>Pflügers Archiv European Journal of Physiology</i> , <b>2015</b> , 467, 253-66	4.6	15
58	Trbo-IT1-New Inhibitor of Insect Calcium Channels Isolated from Spider Venom. <i>Scientific Reports</i> , <b>2015</b> , 5, 17232	4.9	3

57	Homology modeling of Kv1.5 channel block by cationic and electroneutral ligands. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2014</b> , 1838, 978-87	3.8	9
56	Folding similarity of the outer pore region in prokaryotic and eukaryotic sodium channels revealed by docking of conotoxins GIIIA, PIIIA, and KIIIA in a NavAb-based model of Nav1.4. <i>Journal of General Physiology</i> , <b>2014</b> , 144, 231-44	3.4	28
55	Properties of spontaneous and miniature excitatory postsynaptic currents in neurons of the rat prefrontal cortex. <i>Journal of Evolutionary Biochemistry and Physiology</i> , <b>2014</b> , 50, 506-514	0.5	8
54	The effects of conformational constraints in the polyamine moiety of philanthotoxins on AMPAR inhibition. <i>ChemMedChem</i> , <b>2014</b> , 9, 1725-31	3.7	5
53	Ligand action on sodium, potassium, and calcium channels: role of permeant ions. <i>Trends in Pharmacological Sciences</i> , <b>2013</b> , 34, 154-61	13.2	17
52	The Diversity of Mechanisms of Blockade of Ion Channels as a Pathway to the Design of New Pharmacological Agents. <i>Neuroscience and Behavioral Physiology</i> , <b>2012</b> , 42, 111-119	0.3	
51	Influence of external magnesium ions on the NMDA receptor channel block by different types of organic cations. <i>Neuropharmacology</i> , <b>2012</b> , 62, 2078-85	5.5	40
50	Architecture and pore block of eukaryotic voltage-gated sodium channels in view of NavAb bacterial sodium channel structure. <i>Molecular Pharmacology</i> , <b>2012</b> , 82, 97-104	4.3	88
49	Argitoxin in the closed AMPA receptor channel: experimental and modeling study. <i>Biochemistry</i> , <b>2011</b> , 50, 8213-20	3.2	14
48	Effects of the Ionic Composition of the External Medium on Blockade of the Ion Channels of AMPA Receptors. <i>Neuroscience and Behavioral Physiology</i> , <b>2011</b> , 41, 647-653	0.3	
47	Possible roles of exceptionally conserved residues around the selectivity filters of sodium and calcium channels. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 2998-3006	5.4	30
46	Voltage-dependent and -independent block of $\alpha$ -amino-3-hydroxy-5-methylisoxazole-4-propionate receptor channels. <i>Journal of Neurochemistry</i> , <b>2010</b> , 115, 1621-32	6	4
45	Structural modeling of calcium binding in the selectivity filter of the L-type calcium channel. <i>European Biophysics Journal</i> , <b>2010</b> , 39, 839-53	1.9	14
44	Investigation of structure-activity relationships in organophosphates-cholinesterase interaction using docking analysis. <i>Chemico-Biological Interactions</i> , <b>2010</b> , 187, 153-6	5	3
43	Structural model for dihydropyridine binding to L-type calcium channels. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 19006-17	5.4	66
42	Structural model for phenylalkylamine binding to L-type calcium channels. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 28332-28342	5.4	39
41	Origin and molecular evolution of ionotropic glutamate receptors. <i>Neuroscience and Behavioral Physiology</i> , <b>2009</b> , 39, 763-73	0.3	38
40	Common binding site for externally and internally applied AMPA receptor channel blockers. <i>Journal of Molecular Neuroscience</i> , <b>2009</b> , 39, 169-74	3.3	8

39	Characterization of ionotropic glutamate receptors in insect neuro-muscular junction. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , <b>2009</b> , 149, 275-80	3.2	9
38	9-Aminoacridine blocks NMDA and AMPA receptors by different mechanisms. <i>Biochemistry (Moscow) Supplement Series A: Membrane and Cell Biology</i> , <b>2009</b> , 3, 275-280	0.7	
37	Blockade of NMDA receptor channels by 9-aminoacridine and its derivatives. <i>Neuroscience Letters</i> , <b>2009</b> , 451, 29-33	3.3	19
36	Ion channels of glutamate receptors of nerve-muscle junction of larva of the fly <i>Calliphora vicina</i> demonstrate a high structural homology with vertebrate AMPA-channels. <i>Journal of Evolutionary Biochemistry and Physiology</i> , <b>2008</b> , 44, 657-665	0.5	1
35	Organic blockers escape from trapping in the AMPA receptor channels by leaking into the cytoplasm. <i>Neuropharmacology</i> , <b>2008</b> , 54, 653-64	5.5	20
34	Access and binding of local anesthetics in the closed sodium channel. <i>Molecular Pharmacology</i> , <b>2008</b> , 74, 1033-45	4.3	54
33	Molecular modeling of benzothiazepine binding in the L-type calcium channel. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 17594-604	5.4	45
32	Sodium channels: ionic model of slow inactivation and state-dependent drug binding. <i>Biophysical Journal</i> , <b>2007</b> , 93, 1557-70	2.9	51
31	Mechanisms of the blockade of glutamate channel receptors: significance for structural and physiological investigations. <i>Neuroscience and Behavioral Physiology</i> , <b>2007</b> , 37, 277-84	0.3	1
30	Serine-401 as a batrachotoxin- and local anesthetic-sensing residue in the human cardiac Na <sup>+</sup> channel. <i>Pflügers Archiv European Journal of Physiology</i> , <b>2007</b> , 454, 277-87	4.6	20
29	Irreversible block of cardiac mutant Na <sup>+</sup> channels by batrachotoxin. <i>Channels</i> , <b>2007</b> , 1, 179-88	3	22
28	Selective blockade of Ca <sup>2+</sup> permeable AMPA receptors in CA1 area of rat hippocampus. <i>Neuroscience</i> , <b>2007</b> , 144, 88-99	3.9	26
27	Ion channels of glutamate receptors: structural modeling. <i>Molecular Membrane Biology</i> , <b>2007</b> , 24, 135-47	3.4	32
26	How batrachotoxin modifies the sodium channel permeation pathway: computer modeling and site-directed mutagenesis. <i>Molecular Pharmacology</i> , <b>2006</b> , 69, 788-95	4.3	49
25	Atomic determinants of state-dependent block of sodium channels by charged local anesthetics and benzocaine. <i>FEBS Letters</i> , <b>2006</b> , 580, 6027-32	3.8	37
24	Uncompetitive antagonism of AMPA receptors: Mechanistic insights from studies of polyamine toxin derivatives. <i>Journal of Medicinal Chemistry</i> , <b>2006</b> , 49, 5414-23	8.3	41
23	Sodium channel activators: model of binding inside the pore and a possible mechanism of action. <i>FEBS Letters</i> , <b>2005</b> , 579, 4207-12	3.8	51
22	Design of antagonists for NMDA and AMPA receptors. <i>Neuropharmacology</i> , <b>2005</b> , 49, 144-55	5.5	46

21	Modeling P-loops domain of sodium channel: homology with potassium channels and interaction with ligands. <i>Biophysical Journal</i> , <b>2005</b> , 88, 184-97	2.9	112
20	Action of extracellular divalent cations on native alpha-amino-3-hydroxy-5-methylisoxazole-4-propionate (AMPA) receptors. <i>Journal of Neurochemistry</i> , <b>2005</b> , 95, 1704-12	6	9
19	Analysis of the excitatory and inhibitory components of postsynaptic currents recorded in pyramidal neurons and interneurons in the rat hippocampus. <i>Neuroscience and Behavioral Physiology</i> , <b>2005</b> , 35, 835-43	0.3	4
18	Potassium, sodium, calcium and glutamate-gated channels: pore architecture and ligand action. <i>Journal of Neurochemistry</i> , <b>2004</b> , 88, 782-99	6	93
17	Modeling noncompetitive antagonism of a nicotinic acetylcholine receptor. <i>Biophysical Journal</i> , <b>2004</b> , 87, 159-70	2.9	20
16	In silico activation of KcsA K <sup>+</sup> channel by lateral forces applied to the C-termini of inner helices. <i>Biophysical Journal</i> , <b>2004</b> , 87, 1526-36	2.9	27
15	Contrasting actions of philanthotoxin-343 and philanthotoxin-(12) on human muscle nicotinic acetylcholine receptors. <i>Molecular Pharmacology</i> , <b>2003</b> , 64, 954-64	4.3	29
14	Studies of the structure of glutamate receptor ion channels and the mechanisms of their blockade by organic cations. <i>Neuroscience and Behavioral Physiology</i> , <b>2003</b> , 33, 237-46	0.3	3
13	Determinants of trapping block of N-methyl-D-aspartate receptor channels. <i>Journal of Neurochemistry</i> , <b>2003</b> , 87, 56-65	6	66
12	Structural characteristics of ionotropic glutamate receptors as identified by channel blockade. <i>Neuroscience and Behavioral Physiology</i> , <b>2002</b> , 32, 173-82	0.3	1
11	Effect of flumazenil on GABAA receptors in isolated rat hippocampal neurons. <i>Neurochemical Research</i> , <b>2002</b> , 27, 1605-12	4.6	21
10	Modeling of the pore domain of the GLUR1 channel: homology with K <sup>+</sup> channel and binding of channel blockers. <i>Biophysical Journal</i> , <b>2002</b> , 82, 1884-93	2.9	48
9	Characterization of acid-sensitive ion channels in freshly isolated rat brain neurons. <i>Neuroscience</i> , <b>2002</b> , 110, 723-30	3.9	45
8	Ca <sup>2+</sup> -dependent desensitization of AMPA receptors. <i>NeuroReport</i> , <b>2000</b> , 11, 2937-41	1.7	11
7	Voltage-dependent block of native AMPA receptor channels by dicationic compounds. <i>British Journal of Pharmacology</i> , <b>2000</b> , 129, 265-74	8.6	37
6	Different arrangement of hydrophobic and nucleophilic components of channel binding sites in N-methyl-D-aspartate and AMPA receptors of rat brain is revealed by channel blockade. <i>Neuroscience Letters</i> , <b>2000</b> , 291, 101-4	3.3	39
5	Solid-phase synthesis and biological evaluation of a combinatorial library of philanthotoxin analogues. <i>Journal of Medicinal Chemistry</i> , <b>2000</b> , 43, 4526-33	8.3	41
4	Intersegment hydrogen bonds as possible structural determinants of the N/Q/R site in glutamate receptors. <i>Biophysical Journal</i> , <b>1999</b> , 77, 1914-26	2.9	25

3	Voltage dependence of open channel blockade: onset and offset rates. <i>Journal of Membrane Biology</i> , <b>1998</b> , 161, 1-8	2.3	26
2	Kinked-helices model of the nicotinic acetylcholine receptor ion channel and its complexes with blockers: simulation by the Monte Carlo minimization method. <i>Biophysical Journal</i> , <b>1998</b> , 74, 242-55	2.9	36
1	Architecture of the neuronal nicotinic acetylcholine receptor ion channel at the binding site of bis-ammonium blockers. <i>Journal of Membrane Biology</i> , <b>1996</b> , 152, 77-87	2.3	9