

# Slobodan M Todorovic

## List of Publications by Year in descending order

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81  
papers

4,178  
citations

147801

31  
h-index

114465

63  
g-index

82  
all docs

82  
docs citations

82  
times ranked

2519  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthetic neuroactive steroids as new sedatives and anaesthetics: Back to the future. <i>Journal of Neuroendocrinology</i> , 2022, 34, e13086.	2.6	7
2	General Anesthesia and the Young Brain: The Importance of Novel Strategies with Alternate Mechanisms of Action. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1889.	4.1	3
3	Thalamic T-Type Calcium Channels as Targets for Hypnotics and General Anesthetics. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2349.	4.1	5
4	L-cysteine modulates visceral nociception mediated by the CaV2.3 R-type calcium channels. <i>Pflügers Archiv European Journal of Physiology</i> , 2022, 474, 435-445.	2.8	5
5	The Mechanisms of Plasticity of Nociceptive Ion Channels in Painful Diabetic Neuropathy. <i>Frontiers in Pain Research</i> , 2022, 3, 869735.	2.0	3
6	Further Evidence that Inhibition of Neuronal Voltage-Gated Calcium Channels Contributes to the Hypnotic Effect of Neurosteroid Analogue, 3 $\beta$ -OH. <i>Frontiers in Pharmacology</i> , 2022, 13, .	3.5	1
7	The T-type calcium channel isoform Cav3.1 is a target for the hypnotic effect of the anaesthetic neurosteroid (3 $\beta$ ,5 $\beta$ ,17 $\beta$ )-3-hydroxyandrostane-17-carbonitrile. <i>British Journal of Anaesthesia</i> , 2021, 126, 245-255.	3.4	16
8	Alpha lipoic acid attenuates evoked and spontaneous pain following surgical skin incision in rats. <i>Channels</i> , 2021, 15, 398-407.	2.8	3
9	Differential effects of the novel neurosteroid hypnotic (3 $\beta$ ,5 $\beta$ ,17 $\beta$ )-3-hydroxyandrostane-17-carbonitrile on electroencephalogram activity in male and female rats. <i>British Journal of Anaesthesia</i> , 2021, 127, 435-446.	3.4	14
10	Different roles of T-type calcium channel isoforms in hypnosis induced by an endogenous neurosteroid epipregnanolone. <i>Neuropharmacology</i> , 2021, 197, 108739.	4.1	3
11	Painful diabetic neuropathy leads to functional CaV3.2 expression and spontaneous activity in skin nociceptors of mice. <i>Experimental Neurology</i> , 2021, 346, 113838.	4.1	9
12	Neonatal Isoflurane Does Not Affect Sleep Architecture and Minimally Alters Neuronal Beta Oscillations in Adolescent Rats. <i>Frontiers in Behavioral Neuroscience</i> , 2021, 15, 703859.	2.0	1
13	The Role of Free Oxygen Radicals in Lasting Hyperexcitability of Rat Subicular Neurons After Exposure to General Anesthesia During Brain Development. <i>Molecular Neurobiology</i> , 2020, 57, 208-216.	4.0	8
14	Novel neuroactive steroid with hypnotic and T $\alpha$ -type calcium channel blocking properties exerts effective analgesia in a rodent model of post-surgical pain. <i>British Journal of Pharmacology</i> , 2020, 177, 1735-1753.	5.4	18
15	The role of KCC2 in hyperexcitability of the neonatal brain. <i>Neuroscience Letters</i> , 2020, 738, 135324.	2.1	8
16	Preemptive Analgesic Effect of Intrathecal Applications of Neuroactive Steroids in a Rodent Model of Post-Surgical Pain: Evidence for the Role of T-Type Calcium Channels. <i>Cells</i> , 2020, 9, 2674.	4.1	5
17	Global genetic deletion of CaV3.3 channels facilitates anaesthetic induction and enhances isoflurane-sparing effects of T-type calcium channel blockers. <i>Scientific Reports</i> , 2020, 10, 21510.	3.3	5
18	Neonatal Ketamine Alters High-Frequency Oscillations and Synaptic Plasticity in the Subiculum But Does not Affect Sleep Macrostructure in Adolescent Rats. <i>Frontiers in Systems Neuroscience</i> , 2020, 14, 26.	2.5	9

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19	Neuroactive steroids alphaxalone and CDNC24 are effective hypnotics and potentiators of GABAA currents, but are not neurotoxic to the developing rat brain. <i>British Journal of Anaesthesia</i> , 2020, 124, 603-613.	3.4	23
20	Glycosylation of CaV3.2 Channels Contributes to the Hyperalgesia in Peripheral Neuropathy of Type 1 Diabetes. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 605312.	3.7	13
21	A novel phospho-modulatory mechanism contributes to the calcium-dependent regulation of T-type Ca <sup>2+</sup> channels. <i>Scientific Reports</i> , 2019, 9, 15642.	3.3	4
22	Inhibition of multiple voltage-gated calcium channels may contribute to spinally mediated analgesia by epipregnanolone in a rat model of surgical paw incision. <i>Channels</i> , 2019, 13, 48-61.	2.8	9
23	Alterations in Oscillatory Behavior of Central Medial Thalamic Neurons Demonstrate a Key Role of CaV3.1 Isoform of T-Channels During Isoflurane-Induced Anesthesia. <i>Cerebral Cortex</i> , 2019, 29, 4679-4696.	2.9	24
24	Neonatal general anesthesia causes lasting alterations in excitatory and inhibitory synaptic transmission in the ventrobasal thalamus of adolescent female rats. <i>Neurobiology of Disease</i> , 2019, 127, 472-481.	4.4	24
25	Novel neurosteroid hypnotic blocks T-type calcium channel-dependent rebound burst firing and suppresses long-term potentiation in the rat subiculum. <i>British Journal of Anaesthesia</i> , 2019, 122, 643-651.	3.4	12
26	Pharmacological Antagonism of T-Type Calcium Channels Constrains Rebound Burst Firing in Two Distinct Subpopulations of GABA Neurons in the Rat Ventral Tegmental Area: Implications for $\hat{\pm}$ -Lipoic Acid. <i>Frontiers in Pharmacology</i> , 2019, 10, 1402.	3.5	2
27	CaV3.1 isoform of T-type calcium channels supports excitability of rat and mouse ventral tegmental area neurons. <i>Neuropharmacology</i> , 2018, 135, 343-354.	4.1	13
28	Histone Deacetylase Inhibitor Entinostat (MS-275) Restores Anesthesia-induced Alteration of Inhibitory Synaptic Transmission in the Developing Rat Hippocampus. <i>Molecular Neurobiology</i> , 2018, 55, 222-228.	4.0	16
29	Neurosteroids in Pain Management: A New Perspective on an Old Player. <i>Frontiers in Pharmacology</i> , 2018, 9, 1127.	3.5	24
30	Selective inhibition of Ca <sup>v</sup> 3.2 channels reverses hyperexcitability of peripheral nociceptors and alleviates postsurgical pain. <i>Science Signaling</i> , 2018, 11, .	3.6	48
31	Cytosolic ATP Relieves Voltage-Dependent Inactivation of T-Type Calcium Channels and Facilitates Excitability of Neurons in the Rat Central Medial Thalamus. <i>ENeuro</i> , 2018, 5, ENEURO.0016-18.2018.	1.9	11
32	The role of T-type calcium channels in the subiculum: to burst or not to burst?. <i>Journal of Physiology</i> , 2017, 595, 6327-6348.	2.9	29
33	Redox and trace metal regulation of ion channels in the pain pathway. <i>Biochemical Journal</i> , 2015, 470, 275-280.	3.7	6
34	Hyperexcitability of Rat Thalamocortical Networks after Exposure to General Anesthesia during Brain Development. <i>Journal of Neuroscience</i> , 2015, 35, 1481-1492.	3.6	30
35	Early Exposure to General Anesthesia with Isoflurane Downregulates Inhibitory Synaptic Neurotransmission in the Rat Thalamus. <i>Molecular Neurobiology</i> , 2015, 52, 952-958.	4.0	25
36	Is Diabetic Nerve Pain Caused by Dysregulated Ion Channels in Sensory Neurons?. <i>Diabetes</i> , 2015, 64, 3987-3989.	0.6	15

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37	CaV3.2 T-Type Calcium Channels in Peripheral Sensory Neurons Are Important for Mibefradil-Induced Reversal of Hyperalgesia and Allodynia in Rats with Painful Diabetic Neuropathy. PLoS ONE, 2014, 9, e91467.	2.5	50
38	Targeting of CaV3.2 T-type calcium channels in peripheral sensory neurons for the treatment of painful diabetic neuropathy. Pflugers Archiv European Journal of Physiology, 2014, 466, 701-706.	2.8	55
39	Redox Regulation of Neuronal Voltage-Gated Calcium Channels. Antioxidants and Redox Signaling, 2014, 21, 880-891.	5.4	31
40	Inhibition of CaV3.2 T-type calcium channels in peripheral sensory neurons contributes to analgesic properties of epipregnanolone. Psychopharmacology, 2014, 231, 3503-3515.	3.1	25
41	Reversal of Neuropathic Pain in Diabetes by Targeting Glycosylation of Cav3.2 T-Type Calcium Channels. Diabetes, 2013, 62, 3828-3838.	0.6	96
42	Neuropathic pain: role for presynaptic T-type channels in nociceptive signaling. Pflugers Archiv European Journal of Physiology, 2013, 465, 921-927.	2.8	57
43	Molecular and biophysical basis of glutamate and trace metal modulation of voltage-gated Cav2.3 calcium channels. Journal of General Physiology, 2012, 139, 219-234.	1.9	32
44	Presynaptic CaV3.2 Channels Regulate Excitatory Neurotransmission in Nociceptive Dorsal Horn Neurons. Journal of Neuroscience, 2012, 32, 9374-9382.	3.6	152
45	Inhibition of T-type calcium current in rat thalamocortical neurons by isoflurane. Neuropharmacology, 2012, 63, 266-273.	4.1	27
46	General Anesthesia Causes Long-term Impairment of Mitochondrial Morphogenesis and Synaptic Transmission in Developing Rat Brain. Anesthesiology, 2011, 115, 992-1002.	2.5	164
47	T-type voltage-gated calcium channels as targets for the development of novel pain therapies. British Journal of Pharmacology, 2011, 163, 484-495.	5.4	144
48	Free radical signalling underlies inhibition of Ca <sub>v</sub> 3.2 T-type calcium channels by nitrous oxide in the pain pathway. Journal of Physiology, 2011, 589, 135-148.	2.9	32
49	TTA-P2 Is a Potent and Selective Blocker of T-Type Calcium Channels in Rat Sensory Neurons and a Novel Antinociceptive Agent. Molecular Pharmacology, 2011, 80, 900-910.	2.3	144
50	Are neuronal voltage-gated calcium channels valid cellular targets for general anesthetics?. Channels, 2010, 4, 518-522.	2.8	22
51	A Modeling Study of T-Type Ca <sup>2+</sup> Channel Gating and Modulation by L-Cysteine in Rat Nociceptors. Biophysical Journal, 2010, 98, 197-206.	0.5	7
52	Mechanisms of inhibition of CaV3.1 T-type calcium current by aliphatic alcohols. Neuropharmacology, 2010, 59, 58-69.	4.1	10
53	Molecular Mechanisms of Lipoic Acid Modulation of T-Type Calcium Channels in Pain Pathway. Journal of Neuroscience, 2009, 29, 9500-9509.	3.6	57
54	Mechanisms and Functional Significance of Inhibition of Neuronal T-Type Calcium Channels by Isoflurane. Molecular Pharmacology, 2009, 75, 542-554.	2.3	23

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55	Selective T-Type Calcium Channel Blockade Alleviates Hyperalgesia in <i>ob/ob</i> Mice. <i>Diabetes</i> , 2009, 58, 2656-2665.	0.6	113
56	In vivo silencing of the CaV3.2 T-type calcium channels in sensory neurons alleviates hyperalgesia in rats with streptozocin-induced diabetic neuropathy. <i>Pain</i> , 2009, 145, 184-195.	4.2	153
57	Are neuroactive steroids promising therapeutic agents in the management of acute and chronic pain?. <i>Psychoneuroendocrinology</i> , 2009, 34, S178-S185.	2.7	23
58	Role of voltage-gated calcium channels in ascending pain pathways. <i>Brain Research Reviews</i> , 2009, 60, 84-89.	9.0	215
59	Upregulation of the T-Type Calcium Current in Small Rat Sensory Neurons After Chronic Constrictive Injury of the Sciatic Nerve. <i>Journal of Neurophysiology</i> , 2008, 99, 3151-3156.	1.8	184
60	Regulation of T-Type Calcium Channels in the Peripheral Pain Pathway. <i>Channels</i> , 2007, 1, 238-245.	2.8	33
61	Reducing Agents Sensitize C-Type Nociceptors by Relieving High-Affinity Zinc Inhibition of T-Type Calcium Channels. <i>Journal of Neuroscience</i> , 2007, 27, 8250-8260.	3.6	147
62	Cell-Specific Alterations of T-Type Calcium Current in Painful Diabetic Neuropathy Enhance Excitability of Sensory Neurons. <i>Journal of Neuroscience</i> , 2007, 27, 3305-3316.	3.6	240
63	Inhibition of T-Type Calcium Current in the Reticular Thalamic Nucleus by a Novel Neuroactive Steroid. <i>Annals of the New York Academy of Sciences</i> , 2007, 1122, 83-94.	3.8	14
64	Differential effects of endogenous cysteine analogs on peripheral thermal nociception in intact rats. <i>Pain</i> , 2006, 125, 53-64.	4.2	20
65	CaV3.2 is the major molecular substrate for redox regulation of T-type Ca <sup>2+</sup> channels in the rat and mouse thalamus. <i>Journal of Physiology</i> , 2006, 574, 415-430.	2.9	81
66	The role of peripheral T-type calcium channels in pain transmission. <i>Cell Calcium</i> , 2006, 40, 197-203.	2.4	61
67	Contrasting anesthetic sensitivities of T-type Ca <sup>2+</sup> channels of reticular thalamic neurons and recombinant Cav 3.3 channels. <i>British Journal of Pharmacology</i> , 2005, 144, 59-70.	5.4	56
68	Different kinetic properties of two T-type Ca <sup>2+</sup> currents of rat reticular thalamic neurones and their modulation by enflurane. <i>Journal of Physiology</i> , 2005, 566, 125-142.	2.9	59
69	The Endogenous Redox Agent L-Cysteine Induces T-Type Ca <sup>2+</sup> Channel-Dependent Sensitization of a Novel Subpopulation of Rat Peripheral Nociceptors. <i>Journal of Neuroscience</i> , 2005, 25, 8766-8775.	3.6	148
70	Neuroactive Steroids as Targets for Development of Novel Pain Therapies. <i>Current Medicinal Chemistry - Central Nervous System Agents</i> , 2005, 5, 157-164.	0.5	6
71	New evidence that both T-type calcium channels and GABA <sub>A</sub> channels are responsible for the potent peripheral analgesic effects of 5 $\alpha$ -reduced neuroactive steroids. <i>Pain</i> , 2005, 114, 429-443.	4.2	121
72	5 $\alpha$ -Reduced Neuroactive Steroids Are Novel Voltage-Dependent Blockers of T-Type Ca <sup>2+</sup> Channels in Rat Sensory Neurons in Vitro and Potent Peripheral Analgesics in Vivo. <i>Molecular Pharmacology</i> , 2004, 66, 1223-1235.	2.3	80

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73	Redox modulation of peripheral T-type Ca <sup>2+</sup> channels in vivo: alteration of nerve injury-induced thermal hyperalgesia. <i>Pain</i> , 2004, 109, 328-339.	4.2	62
74	Mechanical and thermal anti-nociception in rats after systemic administration of verapamil. <i>Neuroscience Letters</i> , 2004, 360, 57-60.	2.1	22
75	Potent analgesic effects of anticonvulsants on peripheral thermal nociception in rats. <i>British Journal of Pharmacology</i> , 2003, 140, 255-260.	5.4	57
76	Mechanical and thermal antinociception in rats following systemic administration of mibefradil, a T-type calcium channel blocker. <i>Brain Research</i> , 2002, 951, 336-340.	2.2	100
77	Redox Modulation of T-Type Calcium Channels in Rat Peripheral Nociceptors. <i>Neuron</i> , 2001, 31, 75-85.	8.1	230
78	Properties of Ba <sup>2+</sup> currents arising from human $\hat{1}\pm 1E$ and $\hat{1}\pm 1E\hat{1}^23$ constructs expressed in HEK293 cells: physiology, pharmacology, and comparison to native T-type Ba <sup>2+</sup> currents. <i>Neuropharmacology</i> , 1998, 37, 957-972.	4.1	41
79	The Anesthetic Steroid (+)-3 $\hat{1}\pm$ -Hydroxy-5 $\hat{1}\pm$ -androstane-17 $\hat{1}^2$ -carbonitrile Blocks N-, Q-, and R-Type, but Not L- and P-Type, High Voltage-Activated Ca <sup>2+</sup> Current in Hippocampal and Dorsal Root Ganglion Neurons of the Rat. <i>Molecular Pharmacology</i> , 1998, 54, 559-568.	2.3	29
80	Pharmacological Properties of T-Type Ca <sup>2+</sup> Current in Adult Rat Sensory Neurons: Effects of Anticonvulsant and Anesthetic Agents. <i>Journal of Neurophysiology</i> , 1998, 79, 240-252.	1.8	301
81	The role of voltage-gated calcium channels in the mechanisms of anesthesia and perioperative analgesia. <i>Current Opinion in Anaesthesiology</i> , 0, Publish Ahead of Print, .	2.0	3