Gyorgy Panyi

List of Publications by Year in descending order

109 papers	2,837 citations	159585 30 h-index	214800 47 g-index
113 all docs	113 docs citations	113 times ranked	2724 citing authors

#	Article	IF	Citations
1	C-type inactivation of a voltage-gated K+ channel occurs by a cooperative mechanism. Biophysical Journal, 1995, 69, 896-903.	0.5	160
2	Kv1.3 potassium channels are localized in the immunological synapse formed between cytotoxic and target cells. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1285-1290.	7.1	119
3	Selective Na _V 1.1 activation rescues Dravet syndrome mice from seizures and premature death. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8077-E8085.	7.1	105
4	Ion channels and lymphocyte activation. Immunology Letters, 2004, 92, 55-66.	2.5	101
5	K+ Channel Blockers: Novel Tools to Inhibit T Cell Activation Leading to Specific Immunosuppression. Current Pharmaceutical Design, 2006, 12, 2199-2220.	1.9	89
6	Vm24, a Natural Immunosuppressive Peptide, Potently and Selectively Blocks Kv1.3 Potassium Channels of Human T Cells. Molecular Pharmacology, 2012, 82, 372-382.	2.3	83
7	Cholesterol modifies the gating of Kv1.3 in human T lymphocytes. Pflugers Archiv European Journal of Physiology, 2003, 445, 674-682.	2.8	82
8	Cross Talk between Activation and Slow Inactivation Gates of Shaker Potassium Channels. Journal of General Physiology, 2006, 128, 547-559.	1.9	81
9	Colocalization and nonrandom distribution of Kv1.3 potassium channels and CD3 molecules in the plasma membrane of human T lymphocytes. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2592-2597.	7.1	80
10	Two novel toxins from the Amazonian scorpion Tityus cambridgei that block Kv1.3 and Shaker B K+-channels with distinctly different affinities. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2002, 1601, 123-131.	2.3	74
11	Margatoxin is a non-selective inhibitor of human Kv1.3 K+ channels. Toxicon, 2014, 87, 6-16.	1.6	61
12	Anuroctoxin, a New Scorpion Toxin of the Î±-KTx 6 Subfamily, Is Highly Selective for Kv1.3 over IKCa1 Ion Channels of Human T Lymphocytes. Molecular Pharmacology, 2005, 67, 1034-1044.	2.3	58
13	Developmental Switch of the Expression of Ion Channels in Human Dendritic Cells. Journal of Immunology, 2009, 183, 4483-4492.	0.8	51
14	Structure, Function, and Chemical Synthesis of Vaejovis mexicanus Peptide 24: A Novel Potent Blocker of Kv1.3 Potassium Channels of Human T Lymphocytes. Biochemistry, 2012, 51, 4049-4061.	2.5	51
15	The EBSA prize lecture. European Biophysics Journal, 2005, 34, 515-530.	2.2	50
16	Ion channels and anti-cancer immunity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130106.	4.0	50
17	Direct and indirect cholesterol effects on membrane proteins with special focus on potassium channels. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158706.	2.4	50
18	A selective blocker of Kv1.2 and Kv1.3 potassium channels from the venom of the scorpion Centruroides suffusus suffusus. Biochemical Pharmacology, 2008, 76, 1142-1154.	4.4	46

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19	Ion channels in T lymphocytes: An update on facts, mechanisms and therapeutic targeting in autoimmune diseases. Immunology Letters, 2010, 130, 19-25.	2.5	46
20	Voltage-Gated Sodium Channel Nav1.7 Maintains the Membrane Potential and Regulates the Activation and Chemokine-Induced Migration of a Monocyte-Derived Dendritic Cell Subset. Journal of Immunology, 2011, 187, 1273-1280.	0.8	43
21	Pituitary Adenylate Cyclase Activating Polypeptide (PACAP) Signalling Exerts Chondrogenesis Promoting and Protecting Effects: Implication of Calcineurin as a Downstream Target. PLoS ONE, 2014, 9, e91541.	2.5	40
22	Switch of Voltage-Gated K+ Channel Expression in the Plasma Membrane of Chondrogenic Cells Affects Cytosolic Ca2+-Oscillations and Cartilage Formation. PLoS ONE, 2011, 6, e27957.	2.5	39
23	The voltage-gated potassium channel KV1.3 as a therapeutic target for venom-derived peptides. Biochemical Pharmacology, 2020, 181, 114146.	4.4	39
24	Looking through ion channels: recharged concepts in T-cell signaling. Trends in Immunology, 2004, 25, 565-569.	6.8	37
25	Death or survival: Membrane ceramide controls the fate and activation of antigen-specific T-cells depending on signal strength and duration. Cellular Signalling, 2006, 18, 294-306.	3.6	37
26	Probing the Cavity of the Slow Inactivated Conformation of Shaker Potassium Channels. Journal of General Physiology, 2007, 129, 403-418.	1.9	37
27	Effects of Toxins Pi2 and Pi3 on Human T Lymphocyte Kv1.3 Channels: The Role of Glu7 and Lys24. Journal of Membrane Biology, 2001, 179, 13-25.	2.1	35
28	pH-dependent modulation of Kv1.3 inactivation: role of His399. American Journal of Physiology - Cell Physiology, 2004, 287, C1067-C1076.	4.6	33
29	Transient receptor potential vanilloidâ€2 mediates the effects of transient heat shock on endocytosis of human monocyteâ€derived dendritic cells. FEBS Letters, 2013, 587, 1440-1445.	2.8	32
30	Novel Î±-KTx peptides from the venom of the scorpion Centruroides elegans selectively blockade Kv1.3 over IKCa1 K+ channels of T cells. Toxicon, 2005, 46, 418-429.	1.6	31
31	Assembly and suppression of endogenous Kv1.3 channels in human T cells.. Journal of General Physiology, 1996, 107, 409-420.	1.9	30
32	Tst26, a novel peptide blocker of Kv1.2 and Kv1.3 channels from the venom of Tityus stigmurus. Toxicon, 2009, 54, 379-389.	1.6	30
33	A new mechanism of voltage-dependent gating exposed by KV10.1 channels interrupted between voltage sensor and pore. Journal of General Physiology, 2017, 149, 577-593.	1.9	30
34	Differential expression of purinergic receptor subtypes in the outer hair cells of the guinea pig. Hearing Research, 2004, 196, 2-7.	2.0	28
35	Blockage of Human T Lymphocyte Kv1.3 Channels by Pi1, a Novel Class of Scorpion Toxin. Biochemical and Biophysical Research Communications, 2000, 278, 34-37.	2.1	25
36	Ion-channel activities regulate transmembrane signaling in thymocyte apoptosis and T-cell activation. Immunology Letters, 1995, 44, 91-95.	2.5	24

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37	The role of PSD-95 in the rearrangement of Kv1.3 channels to the immunological synapse. Pflugers Archiv European Journal of Physiology, 2013, 465, 1341-1353.	2.8	24
38	Isolation, chemical and functional characterization of several new K+-channel blocking peptides from the venom of the scorpion Centruroides tecomanus. Toxicon, 2016, 115, 1-12.	1.6	24
39	Pore-modulating toxins exploit inherent slow inactivation to block K ⁺ channels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18700-18709.	7.1	23
40	Immunosuppressors Inhibit Voltage-Gated Potassium Channels in Human Peripheral Blood Lymphocytes. Biochemical and Biophysical Research Communications, 1996, 221, 254-258.	2.1	22
41	Potassium channel expression in human CD4+ regulatory and naÃ¯ve T cells from healthy subjects and multiple sclerosis patients. Immunology Letters, 2009, 124, 95-101.	2.5	22
42	Functional consequences of Kv1.3 ion channel rearrangement into the immunological synapse. Immunology Letters, 2009, 125, 15-21.	2.5	22
43	Pandinus imperatorScorpion Venom Blocks Voltage-Gated K+Channels in Human Lymphocytes. Biochemical and Biophysical Research Communications, 1998, 242, 621-625.	2.1	21
44	Structure, Molecular Modeling, and Function of the Novel Potassium Channel Blocker Urotoxin Isolated from the Venom of the Australian Scorpion Urodacus yaschenkoi. Molecular Pharmacology, 2014, 86, 28-41.	2.3	21
45	An engineered scorpion toxin analogue with improved Kv1.3 selectivity displays reduced conformational flexibility. Scientific Reports, 2016, 5, 18397.	3.3	21
46	Different expression of Î² subunits of the KCa1.1 channel by invasive and non-invasive human fibroblast-like synoviocytes. Arthritis Research and Therapy, 2016, 18, 103.	3.5	21
47	Effect of cyclosporin A on the membrane potential and Ca2+ level of human lymphoid cell lines and mouse thymocytes. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1019, 159-165.	1.0	20
48	Optimization of the Synthesis of Flavoneâ€“Amino Acid and Flavoneâ€“Dipeptide Hybrids via Buchwaldâ€“Hartwig Reaction. Journal of Organic Chemistry, 2017, 82, 4578-4587.	3.2	20
49	Ion Channels Orchestrate Pancreatic Ductal Adenocarcinoma Progression and Therapy. Frontiers in Pharmacology, 2020, 11, 586599.	3.5	20
50	Regulation of the lateral wall stiffness by acetylcholine and GABA in the outer hair cells of the guinea pig. European Journal of Neuroscience, 2004, 20, 3364-3370.	2.6	19
51	Membrane microdomain organization, calcium signal, and NFAT activation as an important axis in polarized Th cell function. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83A, 185-196.	1.5	19
52	Synthesis, folding, structure and activity of a predicted peptide from the sea anemone Oulactis sp. with an ShKT fold. Toxicon, 2018, 150, 50-59.	1.6	19
53	Multiple Binding Sites for Melatonin on Kv1.3. Biophysical Journal, 2001, 80, 1280-1297.	0.5	17
54	Effects of the PKC inhibitors chelerythrine and bisindolylmaleimide I (GF 109203X) on delayed rectifier K+ currents. Naunyn-Schmiedeberg's Archives of Pharmacology, 2011, 383, 141-148.	3.0	16

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55	7DHC-induced changes of Kv1.3 operation contributes to modified T cell function in Smith-Lemli-Opitz syndrome. Pflugers Archiv European Journal of Physiology, 2016, 468, 1403-1418.	2.8	15
56	Intact rat superior mesenteric artery endothelium is an electrical syncytium and expresses strong inward rectifier K+ conductance. Biochemical and Biophysical Research Communications, 2011, 410, 501-507.	2.1	14
57	OcyKTx2, a new K+-channel toxin characterized from the venom of the scorpion Opisthacanthus cayaporum. Peptides, 2013, 46, 40-46.	2.4	14
58	Sterol Regulation of Voltage-Gated K+ Channels. Current Topics in Membranes, 2017, 80, 255-292.	0.9	14
59	An Alternative to Conventional Immunosuppression: Small-Molecule Inhibitors of Kv1.3 Channels. Molecular Interventions: Pharmacological Perspectives From Biology, Chemistry and Genomics, 2004, 4, 250-254.	3.4	14
60	Activation mechanism dependent surface exposure of cellular factor XIII on activated platelets and platelet microparticles. Journal of Thrombosis and Haemostasis, 2022, 20, 1223-1235.	3.8	14
61	Active and passive behaviour in the regulation of stiffness of the lateral wall in outer hair cells of the guinea-pig. Pflugers Archiv European Journal of Physiology, 2003, 447, 328-336.	2.8	13
62	New phenotypic, functional and electrophysiological characteristics of KG-1 cells. Immunology Letters, 2004, 92, 97-106.	2.5	13
63	Nutrition and immune system: Certain fatty acids differently modify membrane composition and consequently kinetics of KV1.3 channels of human peripheral lymphocytes. Immunobiology, 2007, 212, 213-227.	1.9	13
64	Determining the target of membrane sterols on voltage-gated potassium channels. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2019, 1864, 312-325.	2.4	13
65	The Kv1.3 K+ channel in the immune system and its â€œprecision pharmacologyâ€•using peptide toxins. Biologia Futura, 2021, 72, 75-83.	1.4	13
66	A Ca2+-dependent K+-channel in freshly isolated and cultured chick osteoclasts. Biochimica Et Biophysica Acta - Biomembranes, 1993, 1149, 63-72.	2.6	12
67	Biphasic Effect of Extracellular ATP on the Membrane Potential of Mouse Thymocytes. Biochemical and Biophysical Research Communications, 1993, 191, 378-384.	2.1	12
68	Drug- and mutagenesis-induced changes in the selectivity filter of a cardiac two-pore background K channel. Cardiovascular Research, 2003, 58, 46-54.	3.8	12
69	Structural basis of the potency and selectivity of Urotoxin, a potent Kv1 blocker from scorpion venom. Biochemical Pharmacology, 2020, 174, 113782.	4.4	12
70	A Novel Insecticidal Spider Peptide that Affects the Mammalian Voltage-Gated Ion Channel hKv1.5. Frontiers in Pharmacology, 2020, 11, 563858.	3.5	11
71	An Ï‰-3, but Not an Ï‰-6 Polyunsaturated Fatty Acid Decreases Membrane Dipole Potential and Stimulates Endo-Lysosomal Escape of Penetratin. Frontiers in Cell and Developmental Biology, 2021, 9, 647300.	3.7	11
72	Weaponisation â€˜on the flyâ€™: Convergent recruitment of knottin and defensin peptide scaffolds into the venom of predatory assassin flies. Insect Biochemistry and Molecular Biology, 2020, 118, 103310.	2.7	10

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73	The voltage-gated proton channel hHv1 is functionally expressed in human chorion-derived mesenchymal stem cells. Scientific Reports, 2020, 10, 7100.	3.3	10
74	Enhanced Expression of Human Epididymis Protein 4 (HE4) Reflecting Pro-Inflammatory Status Is Regulated by CFTR in Cystic Fibrosis Bronchial Epithelial Cells. Frontiers in Pharmacology, 2021, 12, 592184.	3.5	10
75	A disulfide-stabilised helical hairpin fold in acrorhagin I: An emerging structural motif in peptide toxins. Journal of Structural Biology, 2021, 213, 107692.	2.8	10
76	Peptide Inhibitors of Kv1.5: An Option for the Treatment of Atrial Fibrillation. Pharmaceuticals, 2021, 14, 1303.	3.8	10
77	The anti-proliferative effect of cation channel blockers in T lymphocytes depends on the strength of mitogenic stimulation. Immunology Letters, 2016, 171, 60-69.	2.5	9
78	N-methyl-D-aspartate (NMDA) receptor expression and function is required for early chondrogenesis. Cell Communication and Signaling, 2019, 17, 166.	6.5	9
79	Periodic Membrane Potential and Ca2+ Oscillations in T Cells Forming an Immune Synapse. International Journal of Molecular Sciences, 2020, 21, 1568.	4.1	9
80	Cyclodextrins Exert a Ligand-like Current Inhibitory Effect on the KV1.3 Ion Channel Independent of Membrane Cholesterol Extraction. Frontiers in Molecular Biosciences, 2021, 8, 735357.	3.5	9
81	Peripheral Blood Lymphocytes Display Reduced K+ Channel Activity in Aged Humans. Biochemical and Biophysical Research Communications, 1994, 199, 519-524.	2.1	8
82	Plasma-membrane-Bound mcromoleculas are dynamically aggregated to form non-random codistribution patterns of selected functional elements. Do pattern recognition processes govern antigen presentation and intercellular interactions?. Journal of Molecular Recognition, 1995, 8, 237-246.	2.1	8
83	Involvement of Membrane Channels in Autoimmune Disorders. Current Pharmaceutical Design, 2007, 13, 2456-2468.	1.9	8
84	Analysis of the K+ current in human CD4+ T lymphocytes in hypercholesterolemic state. Cellular Immunology, 2013, 281, 20-26.	3.0	8
85	Mesenchymal Stromal Cell-Like Cells Set the Balance of Stimulatory and Inhibitory Signals in Monocyte-Derived Dendritic Cells. Stem Cells and Development, 2015, 24, 1805-1816.	2.1	8
86	Membrane Potential Distinctly Modulates Mobility and Signaling of IL-2 and IL-15 Receptors in T Cells. Biophysical Journal, 2018, 114, 2473-2482.	0.5	8
87	Optimization of Pichia pastoris Expression System for High-Level Production of Margatoxin. Frontiers in Pharmacology, 2021, 12, 733610.	3.5	8
88	Cm28, a scorpion toxin having a unique primary structure, inhibits KV1.2 and KV1.3 with high affinity. Journal of General Physiology, 2022, 154, .	1.9	8
89	Changes in Purinoceptor Distribution and Intracellular Calcium Levels following Noise Exposure in the Outer Hair Cells of the Guinea Pig. Journal of Membrane Biology, 2006, 213, 135-141.	2.1	7
90	Effects of changes in extracellular pH and potassium concentration on Kv1.3 inactivation. European Biophysics Journal, 2008, 37, 1145-1156.	2.2	7

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91	Probing pattern and dynamics of disulfide bridges using synthesis and NMR of an ion channel blocker peptide toxin with multiple diselenide bonds. Chemical Science, 2016, 7, 2666-2673.	7.4	7
92	Pi5 and Pi6, two undescribed peptides from the venom of the scorpion Pandinus imperator and their effects on K + -channels. Toxicon, 2017, 133, 136-144.	1.6	7
93	The activation gate controls steady-state inactivation and recovery from inactivation in Shaker. Journal of General Physiology, 2020, 152, .	1.9	7
94	Differential expression of potassium currents in Deiters cells of the guinea pig cochlea. Pflugers Archiv European Journal of Physiology, 2006, 452, 332-341.	2.8	6
95	Closed-state inactivation involving an internal gate in Kv4.1 channels modulates pore blockade by intracellular quaternary ammonium ions. Scientific Reports, 2016, 6, 31131.	3.3	6
96	Shaker-IR K+ channel gating in heavy water: Role of structural water molecules in inactivation. Journal of General Physiology, 2021, 153, .	1.9	5
97	Lipopolysaccharide influences the plasma and brain pharmacokinetics of subcutaneously-administered HsTX1[R14A], a KV1.3-blocking peptide. Toxicon, 2021, 195, 29-36.	1.6	5
98	Immunomagnetic separation is a suitable method for electrophysiology and ion channel pharmacology studies on T cells. Channels, 2021, 15, 53-66.	2.8	5
99	The C-terminal HRET sequence of Kv1.3 regulates gating rather than targeting of Kv1.3 to the plasma membrane. Scientific Reports, 2018, 8, 5937.	3.3	4
100	KCNE4-dependent functional consequences of Kv1.3-related leukocyte physiology. Scientific Reports, 2021, 11, 14632.	3.3	4
101	Immune Synapse Residency of Orai1 Alters Ca2+ Response of T Cells. International Journal of Molecular Sciences, 2021, 22, 11514.	4.1	4
102	sVmKTx, a transcriptome analysis-based synthetic peptide analogue of Vm24, inhibits Kv1.3 channels of human T cells with improved selectivity. Biochemical Pharmacology, 2022, 199, 115023.	4.4	4
103	Potassium Channel Blocking Peptide Toxins from Scorpion Venom. , 2015, , 493-527.		3
104	Molecular Determinants of Selectivity for Kv1.3 K+ Channels. Biophysical Journal, 2013, 104, 465a.	0.5	2
105	Margatoxin is a Nonselective Inhibitor of Kv1.3 Channels - A Comprehensive Study. Biophysical Journal, 2014, 106, 551a-552a.	0.5	2
106	IV. International conference on molecular recognition. European Biophysics Journal, 2008, 37, 1083-1084.	2.2	1
107	Answer to the â€œComment on functional consequences of Kv1.3 ion channel rearrangement into the immunological synapseâ€•by Stefan Bittner et al. [Immunol. Lett. 125 (Aug 15 (2)) (2009) 156â€“157]. Immunology Letters, 2010, 129, 47-49.	2.5	1
108	Role of C-Terminal Domain and Membrane Potential in the Mobility of Kv1.3 Channels in Immune Synapse Forming T Cells. International Journal of Molecular Sciences, 2022, 23, 3313.	4.1	1

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109	Ionic Conductances in Chicken Osteoclasts. , 1998, , 236-245.		0