

Michael W Pennington

List of Publications by Year in descending order

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98
papers

6,966
citations

53660

45
h-index

58464

82
g-index

103
all docs

103
docs citations

103
times ranked

4983
citing authors

#	ARTICLE	IF	CITATIONS
1	Commercial manufacturing of current good manufacturing practice peptides spanning the gamut from neoantigen to commercial large-scale products. <i>Medicine in Drug Discovery</i> , 2021, 9, 100071.	2.3	26
2	Kv1.3 channels are novel determinants of macrophage-dependent endothelial dysfunction in angiotensin II-induced hypertension in mice. <i>British Journal of Pharmacology</i> , 2021, 178, 1836-1854.	2.7	3
3	Kv1.3 Channel Up-Regulation in Peripheral Blood T Lymphocytes of Patients With Multiple Sclerosis. <i>Frontiers in Pharmacology</i> , 2021, 12, 714841.	1.6	3
4	Comprehensive engineering of the tarantula venom peptide huwentoxin-IV to inhibit the human voltage-gated sodium channel hNav1.7. <i>Journal of Biological Chemistry</i> , 2020, 295, 1315-1327.	1.6	17
5	Modulation of Lymphocyte Potassium Channel K _v 1.3 by Membrane-Penetrating, Joint-Targeting Immunomodulatory Plant Defensin. <i>ACS Pharmacology and Translational Science</i> , 2020, 3, 720-736.	2.5	18
6	Biophysical basis for Kv1.3 regulation of membrane potential changes induced by Ca^{2+} -mediated calcium entry in microglia. <i>Glia</i> , 2020, 68, 2377-2394.	2.5	43
7	Comprehensive engineering of the tarantula venom peptide huwentoxin-IV to inhibit the human voltage-gated sodium channel hNav1.7. <i>Journal of Biological Chemistry</i> , 2020, 295, 1315-1327.	1.6	10
8	KCa1.1 and Kv1.3 channels regulate the interactions between fibroblast-like synoviocytes and T lymphocytes during rheumatoid arthritis. <i>Arthritis Research and Therapy</i> , 2019, 21, 6.	1.6	19
9	Targeting KCa1.1 Channels with a Scorpion Venom Peptide for the Therapy of Rat Models of Rheumatoid Arthritis. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2018, 365, 227-236.	1.3	20
10	Structure, folding and stability of a minimal homologue from <i>Anemonia sulcata</i> of the sea anemone potassium channel blocker ShK. <i>Peptides</i> , 2018, 99, 169-178.	1.2	20
11	Peptide therapeutics from venom: Current status and potential. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 2738-2758.	1.4	205
12	Synthesis, folding, structure and activity of a predicted peptide from the sea anemone <i>Oulactis</i> sp. with an ShKT fold. <i>Toxicon</i> , 2018, 150, 50-59.	0.8	19
13	Identification, chemical synthesis, structure, and function of a new K _v 1 channel blocking peptide from <i>Oulactis</i> sp.. <i>Peptide Science</i> , 2018, 110, e24073.	1.0	15
14	Identification and therapeutic modulation of a pro-inflammatory subset of disease-associated-microglia in Alzheimer's disease. <i>Molecular Neurodegeneration</i> , 2018, 13, 24.	4.4	267
15	KCa1.1 channels regulate β 1-integrin function and cell adhesion in rheumatoid arthritis fibroblast-like synoviocytes. <i>FASEB Journal</i> , 2017, 31, 3309-3320.	0.2	22
16	The Single Disulfide-Directed β -Hairpin Fold. Dynamics, Stability, and Engineering. <i>Biochemistry</i> , 2017, 56, 2455-2466.	1.2	5
17	Reinvestigation of the biological activity of d-allo-ShK protein. <i>Journal of Biological Chemistry</i> , 2017, 292, 12599-12605.	1.6	7
18	Prolonged immunomodulation in inflammatory arthritis using the selective Kv1.3 channel blocker HsTX1 [R14A] and its PEGylated analog. <i>Clinical Immunology</i> , 2017, 180, 45-57.	1.4	50

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19	Insensitivity to pain induced by a potent selective closed-state Nav1.7 inhibitor. <i>Scientific Reports</i> , 2017, 7, 39662.	1.6	101
20	Enantioselective synthesis of Fmoc- β -(2-benzothienyl)alanine (2-BtAla) via diastereoselective alkylation of a glycine equivalent. <i>Tetrahedron Letters</i> , 2017, 58, 4388-4390.	0.7	0
21	A systems pharmacology-based approach to identify novel Kv1.3 channel-dependent mechanisms in microglial activation. <i>Journal of Neuroinflammation</i> , 2017, 14, 128.	3.1	58
22	Distribution and kinetics of the Kv1.3-blocking peptide HsTX1 [R14A] in experimental rats. <i>Scientific Reports</i> , 2017, 7, 3756.	1.6	15
23	Enabling Noninvasive Systemic Delivery of the Kv1.3-Blocking Peptide HsTX1 [R14A] via the Buccal Mucosa. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 2173-2179.	1.6	17
24	Pulmonary Delivery of the Kv1.3-Blocking Peptide HsTX1 [R14A] for the Treatment of Autoimmune Diseases. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 650-656.	1.6	27
25	Development of Highly Selective Kv1.3-Blocking Peptides Based on the Sea Anemone Peptide ShK. <i>Marine Drugs</i> , 2015, 13, 529-542.	2.2	55
26	CHAPTER 10. Case Study 2: Transforming a Toxin into a Therapeutic: the Sea Anemone Potassium Channel Blocker ShK Toxin for Treatment of Autoimmune Diseases. <i>RSC Drug Discovery Series</i> , 2015, , 255-274.	0.2	7
27	N-terminally extended analogues of the K ⁺ channel toxin from <i>Stichodactyla helianthus</i> as potent and selective blockers of the voltage-gated potassium channel Kv1.3. <i>FEBS Journal</i> , 2015, 282, 2247-2259.	2.2	26
28	Buccal mucosal delivery of a potent peptide leads to therapeutically-relevant plasma concentrations for the treatment of autoimmune diseases. <i>Journal of Controlled Release</i> , 2015, 199, 37-44.	4.8	26
29	Total Synthesis of Human Heparin through Regioselective Disulfide Bond Formation by using the Safety-Catch Cysteine Protecting Group 4,4'-Dimethylsulfanylbenzhydryl. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 2931-2934.	7.2	46
30	Blockade of Kv1.3 channels ameliorates radiation-induced brain injury. <i>Neuro-Oncology</i> , 2014, 16, 528-539.	0.6	59
31	Kv1.3 channel-blocking immunomodulatory peptides from parasitic worms: implications for autoimmune diseases. <i>FASEB Journal</i> , 2014, 28, 3952-3964.	0.2	76
32	Blocking KV1.3 Channels Inhibits Th2 Lymphocyte Function and Treats a Rat Model of Asthma. <i>Journal of Biological Chemistry</i> , 2014, 289, 12623-12632.	1.6	58
33	FITC-Conjugated Cyclic RGD Peptides as Fluorescent Probes for Staining Integrin $\alpha_5\beta_1$ in Tumor Tissues. <i>Bioconjugate Chemistry</i> , 2014, 18, 1925-1941.	1.8	68
34	A potent and Kv1.3-selective analogue of the scorpion toxin HsTX1 as a potential therapeutic for autoimmune diseases. <i>Scientific Reports</i> , 2014, 4, 4509.	1.6	73
35	^{99m}Tc -Galacto-RGD ₂ : A Novel ^{99m}Tc -Labeled Cyclic RGD Peptide Dimer Useful for Tumor Imaging. <i>Molecular Pharmaceutics</i> , 2013, 10, 3304-3314.	2.3	38
36	A Potent and Selective Peptide Blocker of the Kv1.3 Channel: Prediction from Free-Energy Simulations and Experimental Confirmation. <i>PLoS ONE</i> , 2013, 8, e78712.	1.1	58

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37	Blocking KCa3.1 Channels Increases Tumor Cell Killing by a Subpopulation of Human Natural Killer Lymphocytes. <i>PLoS ONE</i> , 2013, 8, e76740.	1.1	45
38	A C-terminally amidated analogue of ShK is a potent and selective blocker of the voltage-gated potassium channel Kv1.3. <i>FEBS Letters</i> , 2012, 586, 3996-4001.	1.3	41
39	Expression and isotopic labelling of the potassium channel blocker ShK toxin as a thioredoxin fusion protein in bacteria. <i>Toxicon</i> , 2012, 60, 840-850.	0.8	23
40	Durable Pharmacological Responses from the Peptide ShK-186, a Specific Kv1.3 Channel Inhibitor That Suppresses T Cell Mediators of Autoimmune Disease. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2012, 342, 642-653.	1.3	105
41	Development of a sea anemone toxin as an immunomodulator for therapy of autoimmune diseases. <i>Toxicon</i> , 2012, 59, 529-546.	0.8	203
42	Analogues of the Sea Anemone Potassium Channel Blocker ShK for the Treatment of Autoimmune Diseases. <i>Inflammation and Allergy: Drug Targets</i> , 2011, 10, 313-321.	1.8	83
43	Potassium Channel Modulation by a Toxin Domain in Matrix Metalloprotease 23. <i>Journal of Biological Chemistry</i> , 2010, 285, 9124-9136.	1.6	73
44	Engineering a Stable and Selective Peptide Blocker of the Kv1.3 Channel in T Lymphocytes. <i>Molecular Pharmacology</i> , 2009, 75, 762-773.	1.0	128
45	Kv1.3 potassium channels as a therapeutic target in multiple sclerosis. <i>Expert Opinion on Therapeutic Targets</i> , 2009, 13, 909-924.	1.5	79
46	Efficient Synthesis of Protected L-Phosphonophenylalanine (Ppa) Derivatives Suitable for Solid Phase Synthesis. <i>Advances in Experimental Medicine and Biology</i> , 2009, 611, 191-192.	0.8	2
47	Imaging of Effector Memory T Cells during a Delayed-Type Hypersensitivity Reaction and Suppression by Kv1.3 Channel Block. <i>Immunity</i> , 2008, 29, 602-614.	6.6	197
48	The D-Diastereomer of ShK Toxin Selectively Blocks Voltage-gated K ⁺ Channels and Inhibits T Lymphocyte Proliferation. <i>Journal of Biological Chemistry</i> , 2008, 283, 988-997.	1.6	54
49	Characterization of the Functional Properties of the Voltage-Gated Potassium Channel Kv1.3 in Human CD4 ⁺ T Lymphocytes. <i>Journal of Immunology</i> , 2007, 179, 4563-4570.	0.4	86
50	Efficient synthesis of protected l-phosphonophenylalanine (Ppa) derivatives suitable for solid phase peptide synthesis. <i>Tetrahedron Letters</i> , 2007, 48, 4051-4054.	0.7	18
51	Targeted tyrosine iodination in a multi-tyrosine vasopressin analog. <i>Journal of Peptide Science</i> , 2007, 13, 756-761.	0.8	0
52	Potassium channels Kv1.3 and Kv1.5 are expressed on blood-derived dendritic cells in the central nervous system. <i>Annals of Neurology</i> , 2006, 60, 118-127.	2.8	55
53	Kv1.3 channels are a therapeutic target for T cell-mediated autoimmune diseases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 17414-17419.	3.3	470
54	A short practical synthesis of 2-deoxymugineic acid. <i>Tetrahedron Letters</i> , 2005, 46, 1419-1421.	0.7	31

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55	Bass Hecpudin Synthesis, Solution Structure, Antimicrobial Activities and Synergism, and in Vivo Hepatic Response to Bacterial Infections. <i>Journal of Biological Chemistry</i> , 2005, 280, 9272-9282.	1.6	179
56	Targeting Effector Memory T Cells with a Selective Peptide Inhibitor of Kv1.3 Channels for Therapy of Autoimmune Diseases. <i>Molecular Pharmacology</i> , 2005, 67, 1369-1381.	1.0	232
57	Potassium Channel Blockade by the Sea Anemone Toxin ShK for the Treatment of Multiple Sclerosis and Other Autoimmune Diseases. <i>Current Medicinal Chemistry</i> , 2004, 11, 3041-3052.	1.2	77
58	K+ Channel Expression during B Cell Differentiation: Implications for Immunomodulation and Autoimmunity. <i>Journal of Immunology</i> , 2004, 173, 776-786.	0.4	175
59	Rational design and synthesis of selective BACE-1 inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 601-604.	1.0	45
60	Efficient Asymmetric Synthesis of (S)- and (R)-N-Fmoc-S-Trityl- β -methylcysteine Using Camphorsultam as a Chiral Auxiliary. <i>Journal of Organic Chemistry</i> , 2004, 69, 4551-4554.	1.7	19
61	K+ channels as targets for specific immunomodulation. <i>Trends in Pharmacological Sciences</i> , 2004, 25, 280-289.	4.0	404
62	An efficient asymmetric synthesis of Fmoc-L-cyclopentylglycine via diastereoselective alkylation of glycine enolate equivalent. <i>Tetrahedron Letters</i> , 2003, 44, 2683-2685.	0.7	6
63	The Caspase-like Sites of Proteasomes, Their Substrate Specificity, New Inhibitors and Substrates, and Allosteric Interactions with the Trypsin-like Sites. <i>Journal of Biological Chemistry</i> , 2003, 278, 35869-35877.	1.6	167
64	A Novel Fluorescent Toxin to Detect and Investigate Kv1.3 Channel Up-regulation in Chronically Activated T Lymphocytes. <i>Journal of Biological Chemistry</i> , 2003, 278, 9928-9937.	1.6	80
65	The voltage-gated Kv1.3 K+ channel in effector memory T cells as new target for MS. <i>Journal of Clinical Investigation</i> , 2003, 111, 1703-1713.	3.9	368
66	Mutating a Critical Lysine in ShK Toxin Alters Its Binding Configuration in the Pore-Vestibule Region of the Voltage-Gated Potassium Channel, Kv1.3. <i>Biochemistry</i> , 2002, 41, 11963-11971.	1.2	64
67	Addition of o-aminobenzoic acid during Fmoc solid phase synthesis of a fluorogenic substrate containing 3-nitrotyrosine. <i>International Journal of Peptide Research and Therapeutics</i> , 2002, 9, 221-225.	0.1	3
68	Role of disulfide bonds in the structure and activity of ShK toxin. , 2002, , 760-761.		0
69	Potassium channels in T lymphocytes: toxins to therapeutic immunosuppressants. <i>Toxicon</i> , 2001, 39, 1269-1276.	0.8	66
70	Designed Peptide Analogues of the Potassium Channel Blocker ShK Toxin. <i>Biochemistry</i> , 2001, 40, 15528-15537.	1.2	19
71	A helical capping motif in ShK toxin and its role in helix stabilization. <i>Biopolymers</i> , 2001, 58, 422-436.	1.2	11
72	Selective blockade of T lymphocyte K+ channels ameliorates experimental autoimmune encephalomyelitis, a model for multiple sclerosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 13942-13947.	3.3	309

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73	Structure-guided Transformation of Charybdotoxin Yields an Analog That Selectively Targets Ca ²⁺ -activated over Voltage-gated K ⁺ Channels. <i>Journal of Biological Chemistry</i> , 2000, 275, 1201-1208.	1.6	94
74	Structural Conservation of the Pores of Calcium-activated and Voltage-gated Potassium Channels Determined by a Sea Anemone Toxin. <i>Journal of Biological Chemistry</i> , 1999, 274, 21885-21892.	1.6	119
75	Sea anemone toxins as templates for the design of immunosuppressant drugs. <i>Journal of Computer - Aided Molecular Design</i> , 1999, 15/16, 111-129.	1.0	16
76	Role of Disulfide Bonds in the Structure and Potassium Channel Blocking Activity of ShK Toxin. <i>Biochemistry</i> , 1999, 38, 14549-14558.	1.2	32
77	Auto-inactivation by cleavage within the dimer interface of kaposi's sarcoma-associated herpesvirus protease. <i>Journal of Molecular Biology</i> , 1999, 289, 197-203.	2.0	25
78	Ionisation behaviour and solution properties of the potassium-channel blocker ShK toxin. <i>FEBS Journal</i> , 1998, 251, 133-141.	0.2	31
79	ShK-Dap22, a Potent Kv1.3-specific Immunosuppressive Polypeptide. <i>Journal of Biological Chemistry</i> , 1998, 273, 32697-32707.	1.6	222
80	The protease and the assembly protein of Kaposi's sarcoma-associated herpesvirus (human herpesvirus) Tj ETQq0 0,0,rgBT /Oyerlock 10	1.5	44
81	An Essential Binding Surface for ShK Toxin Interaction with Rat Brain Potassium Channels. <i>Biochemistry</i> , 1996, 35, 16407-16411.	1.2	76
82	Identification of Three Separate Binding Sites on SHK Toxin, a Potent Inhibitor of Voltage-Dependent Potassium Channels in Human T-Lymphocytes and Rat Brain. <i>Biochemical and Biophysical Research Communications</i> , 1996, 219, 696-701.	1.0	71
83	Synthesis and structural characterisation of analogues of the potassium channel blocker charybdotoxin. <i>BBA - Proteins and Proteomics</i> , 1996, 1292, 31-38.	2.1	7
84	Secondary structure of ShK toxin, a potassium-channel-blocking peptide. <i>International Journal of Peptide Research and Therapeutics</i> , 1996, 3, 69-72.	0.1	3
85	Mass spectral analysis of peptides containing nitrobenzyl moieties. <i>International Journal of Peptide Research and Therapeutics</i> , 1996, 2, 301-305.	0.1	4
86	Solution structure of ShK toxin, a novel potassium channel inhibitor from a sea anemone. <i>Nature Structural and Molecular Biology</i> , 1996, 3, 317-320.	3.6	184
87	A Continuous Fluorescence-Based Assay of Human Cytomegalovirus Protease Using a Peptide Substrate. <i>Analytical Biochemistry</i> , 1995, 227, 148-155.	1.1	68
88	Assignment of the three disulfide bonds in ShK toxin: A potent potassium channel inhibitor from the sea anemone <i>Stichodactyla helianthus</i> . <i>International Journal of Peptide Research and Therapeutics</i> , 1995, 1, 291-297.	0.1	35
89	Chemical synthesis and characterization of ShK toxin: a potent potassium channel inhibitor from a sea anemone. <i>International Journal of Peptide and Protein Research</i> , 1995, 46, 354-358.	0.1	84
90	A facile method to prepare C-terminal fluorescently labelled peptides by an Fmoc strategy. <i>International Journal of Peptide Research and Therapeutics</i> , 1994, 1, 143-148.	0.1	5

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91	Synthesis of the cardiac inotropic polypeptide anothopleurinâ€A. International Journal of Peptide and Protein Research, 1994, 43, 463-470.	0.1	5
92	Three-dimensional Structure in Solution of the Calcium Channel Blocker Î‰-Conotoxin. Journal of Molecular Biology, 1993, 234, 405-420.	2.0	144
93	Synthesis and characterization of a disulfide bond isomer of omega-conotoxin GVIA. Toxicon, 1992, 30, 755-764.	0.8	10
94	Noncompetitive Inhibition of N-Methyl-D-Aspartate by Conantokin-G: Evidence for an Allosteric Interaction at Polyamine Sites. Journal of Neurochemistry, 1992, 59, 1516-1521.	2.1	56
95	HIV protease, chromogenic substrate and inhibitor. , 1991, , 787-789.		5
96	Sea Anemone Polypeptide Toxins Affecting Sodium Channels. ACS Symposium Series, 1990, , 279-289.	0.5	4
97	Chemical synthesis of a neurotoxic polypeptide from the sea anemone <i>Stichodactyla helianthus</i>⁺. International Journal of Peptide and Protein Research, 1990, 36, 335-343.	0.1	18
98	Isolation, characterization, and amino acid sequence of a polypeptide neurotoxin occurring in the sea anemone <i>Stichodactyla helianthus</i> . Biochemistry, 1989, 28, 3483-3489.	1.2	77