

Peter Anthony McNaughton

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93
papers

8,580
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51
h-index

92
g-index

99
ext. papers

9,266
ext. citations

10.4
avg, IF

6.03
L-index

#	Paper	IF	Citations
93	NGF rapidly increases membrane expression of TRPV1 heat-gated ion channels. <i>EMBO Journal</i> , 2005 , 24, 4211-23	13	544
92	Protein kinase C activation potentiates gating of the vanilloid receptor VR1 by capsaicin, protons, heat and anandamide. <i>Journal of Physiology</i> , 2001 , 534, 813-25	3.9	408
91	A novel heat-activated current in nociceptive neurons and its sensitization by bradykinin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 15435-9	11.5	355
90	Specific involvement of PKC-epsilon in sensitization of the neuronal response to painful heat. <i>Neuron</i> , 1999 , 23, 617-24	13.9	348
89	Extrusion of calcium from rod outer segments is driven by both sodium and potassium gradients. <i>Nature</i> , 1989 , 337, 740-3	50.4	335
88	Spatial spread of activation and background desensitization in toad rod outer segments. <i>Journal of Physiology</i> , 1981 , 319, 463-96	3.9	254
87	Signalling pathways involved in the sensitisation of mouse nociceptive neurones by nerve growth factor. <i>Journal of Physiology</i> , 2003 , 551, 433-46	3.9	249
86	HCN2 ion channels play a central role in inflammatory and neuropathic pain. <i>Science</i> , 2011 , 333, 1462-6	33.3	231
85	The ionic selectivity and calcium dependence of the light-sensitive pathway in toad rods. <i>Journal of Physiology</i> , 1985 , 358, 447-68	3.9	227
84	Acid-induced pain and its modulation in humans. <i>Journal of Neuroscience</i> , 2004 , 24, 10974-9	6.6	199
83	Light response of vertebrate photoreceptors. <i>Physiological Reviews</i> , 1990 , 70, 847-83	47.9	198
82	Proinflammatory mediators modulate the heat-activated ion channel TRPV1 via the scaffolding protein AKAP79/150. <i>Neuron</i> , 2008 , 59, 450-61	13.9	197
81	The thermo-TRP ion channel family: properties and therapeutic implications. <i>British Journal of Pharmacology</i> , 2012 , 165, 787-801	8.6	186
80	Anandamide acts as an intracellular messenger amplifying Ca ²⁺ influx via TRPV1 channels. <i>EMBO Journal</i> , 2005 , 24, 3026-37	13	186
79	Measurement of the intracellular free calcium concentration in salamander rods. <i>Nature</i> , 1986 , 322, 261-3	30.4	173
78	Kinetics and energetics of calcium efflux from intact squid giant axons. <i>Journal of Physiology</i> , 1976 , 259, 103-44	3.9	169
77	Response properties of cones from the retina of the tiger salamander. <i>Journal of Physiology</i> , 1991 , 433, 561-87	3.9	166

76	Electrogenic properties of the Na:Ca exchange. <i>Journal of Membrane Biology</i> , 1990 , 113, 177-91	2.3	164
75	Effect of ions on the light-sensitive current in retinal rods. <i>Nature</i> , 1981 , 292, 502-5	50.4	162
74	Calcium homeostasis in the outer segments of retinal rods from the tiger salamander. <i>Journal of Physiology</i> , 1992 , 455, 111-42	3.9	161
73	Characterization of the primary spinal afferent innervation of the mouse colon using retrograde labelling. <i>Neurogastroenterology and Motility</i> , 2004 , 16, 113-24	4	153
72	Inflammatory pain: the cellular basis of heat hyperalgesia. <i>Current Neuropharmacology</i> , 2006 , 4, 197-206	7.6	140
71	The TRPM2 ion channel is required for sensitivity to warmth. <i>Nature</i> , 2016 , 536, 460-3	50.4	135
70	Ion channels gated by heat. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 7658-63	11.5	133
69	Activation of the TRPV4 ion channel is enhanced by phosphorylation. <i>Journal of Biological Chemistry</i> , 2009 , 284, 27884-27891	5.4	131
68	Peripheral pain mechanisms. <i>Current Opinion in Neurobiology</i> , 1997 , 7, 493-9	7.6	116
67	Direct inhibition of the cold-activated TRPM8 ion channel by G β . <i>Nature Cell Biology</i> , 2012 , 14, 851-8	23.4	114
66	Temporal and spatial characteristics of the voltage response of rods in the retina of the snapping turtle. <i>Journal of Physiology</i> , 1980 , 300, 213-50	3.9	114
65	Role of the hyperpolarization-activated current I _h in somatosensory neurons. <i>Journal of Physiology</i> , 2008 , 586, 5911-29	3.9	112
64	Plasma albumin is a potent trigger of calcium signals and DNA synthesis in astrocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995 , 92, 1426-30	11.5	110
63	Modulation of acid-sensing ion channel activity by nitric oxide. <i>Journal of Neuroscience</i> , 2007 , 27, 13251-60	6.6	109
62	Arachidonic acid potentiates acid-sensing ion channels in rat sensory neurons by a direct action. <i>Neuroscience</i> , 2007 , 145, 686-98	3.9	103
61	Confocal microscopy: applications in neurobiology. <i>Trends in Neurosciences</i> , 1988 , 11, 346-51	13.3	100
60	Effect of ions on retinal rods from <i>Bufo marinus</i> . <i>Journal of Physiology</i> , 1984 , 350, 649-80	3.9	99
59	Modulation of temperature-sensitive TRP channels. <i>Seminars in Cell and Developmental Biology</i> , 2006 , 17, 638-45	7.5	98

58	Protein kinase C-mediated phosphorylation does not regulate drug transport by the human multidrug resistance P-glycoprotein. <i>Journal of Biological Chemistry</i> , 1996 , 271, 13668-74	5.4	94
57	A surprising property of electrical spread in the network of rods in the turtle's retina. <i>Nature</i> , 1978 , 274, 562-5	50.4	90
56	Ion transport by the Na-Ca exchange in isolated rod outer segments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 4548-52	11.5	89
55	Sensitization of transient receptor potential vanilloid 1 by the prokineticin receptor agonist Bv8. <i>Journal of Neuroscience</i> , 2006 , 26, 5109-16	6.6	85
54	Direct evidence for functional TRPV1/TRPA1 heteromers. <i>Pflügers Archiv European Journal of Physiology</i> , 2014 , 466, 2229-41	4.6	81
53	HCN2 ion channels: an emerging role as the pacemakers of pain. <i>Trends in Pharmacological Sciences</i> , 2012 , 33, 456-63	13.2	81
52	Magnetic characterization of isolated candidate vertebrate magnetoreceptor cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 12022-7	11.5	81
51	Functional bradykinin B1 receptors are expressed in nociceptive neurones and are upregulated by the neurotrophin GDNF. <i>Journal of Physiology</i> , 2004 , 560, 391-401	3.9	75
50	Inflammatory and neuropathic pain are rapidly suppressed by peripheral block of hyperpolarisation-activated cyclic nucleotide-gated ion channels. <i>Pain</i> , 2014 , 155, 1708-1719	8	72
49	Modulation of single-channel properties of TRPV1 by phosphorylation. <i>Journal of Physiology</i> , 2010 , 588, 3743-56	3.9	69
48	The influence of extracellular calcium binding on the calcium efflux from squid axons. <i>Journal of Physiology</i> , 1978 , 276, 127-50	3.9	65
47	The effects of calcium on outward membrane currents in the cardiac Purkinje fibre. <i>Journal of Physiology</i> , 1979 , 289, 347-73	3.9	61
46	Disrupting sensitization of transient receptor potential vanilloid subtype 1 inhibits inflammatory hyperalgesia. <i>Journal of Neuroscience</i> , 2013 , 33, 7407-14	6.6	58
45	Upregulation of bradykinin B2 receptor expression by neurotrophic factors and nerve injury in mouse sensory neurons. <i>Molecular and Cellular Neurosciences</i> , 2002 , 19, 186-200	4.8	57
44	Protease activated receptors 1 and 4 sensitize TRPV1 in nociceptive neurones. <i>Molecular Pain</i> , 2010 , 6, 61	3.4	56
43	Hyperpolarization-activated cyclic nucleotide-gated 2 (HCN2) ion channels drive pain in mouse models of diabetic neuropathy. <i>Science Translational Medicine</i> , 2017 , 9, eaam6072	17.5	54
42	Multidrug transporters in prokaryotic and eukaryotic cells: physiological functions and transport mechanisms. <i>Molecular Membrane Biology</i> , 2001 , 18, 97-103	3.4	45
41	The effects of phosphodiesterase inhibitors and lanthanum ions on the light-sensitive current of toad retinal rods. <i>Journal of Physiology</i> , 1986 , 370, 91-109	3.9	43

40	Avian magnetite-based magnetoreception: a physiologist's perspective. <i>Journal of the Royal Society Interface</i> , 2010 , 7 Suppl 2, S193-205	4.1	40
39	Functional lipidomics. Calcium-independent activation of endocannabinoid/endovanilloid lipid signalling in sensory neurons by protein kinases C and A and thrombin. <i>Neuropharmacology</i> , 2008 , 55, 1274-9	5.5	40
38	Proton binding sites involved in the activation of acid-sensing ion channel ASIC2a. <i>Neuroscience Letters</i> , 2007 , 426, 12-7	3.3	36
37	Mapping the binding site of TRPV1 on AKAP79: implications for inflammatory hyperalgesia. <i>Journal of Neuroscience</i> , 2013 , 33, 9184-9193	6.6	33
36	Plasma albumin induces calcium waves in rat cortical astrocytes. <i>Glia</i> , 1997 , 19, 343-51	9	31
35	HCN2 ion channels: basic science opens up possibilities for therapeutic intervention in neuropathic pain. <i>Biochemical Journal</i> , 2016 , 473, 2717-36	3.8	30
34	Modulation of the synaptic Ca ²⁺ current in salamander photoreceptors by polyunsaturated fatty acids and retinoids. <i>Journal of Physiology</i> , 2000 , 529 Pt 2, 333-44	3.9	30
33	Sensitization of TRPA1 by Protein Kinase A. <i>PLoS ONE</i> , 2017 , 12, e0170097	3.7	27
32	Enrichment of the fraction of nociceptive neurones in cultures of primary sensory neurones. <i>Journal of Neuroscience Methods</i> , 1997 , 71, 191-8	3	26
31	Why pain gets worse: the mechanism of heat hyperalgesia. <i>Journal of General Physiology</i> , 2006 , 128, 491-504	3.4	26
30	K ⁺ and Cl ⁻ currents in enterocytes isolated from guinea-pig small intestinal villi. <i>Journal of Physiology</i> , 1991 , 434, 351-67	3.9	26
29	Agonist-induced sensitisation of the irritant receptor ion channel TRPA1. <i>Journal of Physiology</i> , 2016 , 594, 6643-6660	3.9	26
28	Regulation of firing frequency in nociceptive neurons by pro-inflammatory mediators. <i>Experimental Brain Research</i> , 2009 , 196, 45-52	2.3	25
27	Spread of activation and desensitisation in rod outer segments. <i>Nature</i> , 1980 , 283, 85-7	50.4	22
26	Temperature dependence of the light response in rat rods. <i>Journal of Physiology</i> , 1993 , 462, 465-81	3.9	21
25	TRPM2 and warmth sensation. <i>Pflügers Archiv European Journal of Physiology</i> , 2018 , 470, 787-798	4.6	20
24	Albumin elicits calcium signals from astrocytes in brain slices from neonatal rat cortex. <i>Journal of Physiology</i> , 1998 , 509 (Pt 3), 711-6	3.9	19
23	Net charge transport during sodium-dependent calcium extrusion in isolated salamander rod outer segments. <i>Journal of General Physiology</i> , 1991 , 98, 479-95	3.4	18

22	Possible involvement of GTP-binding proteins in the deactivation of an inwardly rectifying K ⁺ current in enterocytes isolated from guinea-pig small intestine. <i>Pflugers Archiv European Journal of Physiology</i> , 1990 , 417, 240-2	4.6	16
21	HCN3 ion channels: roles in sensory neuronal excitability and pain. <i>Journal of Physiology</i> , 2019 , 597, 4661-4675	3.9	13
20	Glial cell responses to lipids bound to albumin in serum and plasma. <i>Progress in Brain Research</i> , 2001 , 132, 367-74	2.9	13
19	Lysophospholipids trigger calcium signals but not DNA synthesis in cortical astrocytes 1999 , 28, 272-276		13
18	Manipulation of synaptic sign and strength with divalent cations in the vertebrate retina: pushing the limits of tonic, chemical neurotransmission. <i>European Journal of Neuroscience</i> , 1999 , 11, 4134-8	3.5	12
17	Sensitisation of Nociceptors [What are Ion Channels Doing?]. <i>Open Pain Journal</i> , 2010 , 3, 82-96	0.3	12
16	Sensitisation of TRPV1 in rat sensory neurones by activation of SNSRs. <i>Neuroscience Letters</i> , 2007 , 422, 1-6	3.3	11
15	A randomised, double-blind, placebo-controlled crossover trial of the influence of the HCN channel blocker ivabradine in a healthy volunteer pain model: an enriched population trial. <i>Pain</i> , 2019 , 160, 2554-2565	8.5	11
14	Current perspectives on the modulation of thermo-TRP channels: new advances and therapeutic implications. <i>Expert Review of Clinical Pharmacology</i> , 2010 , 3, 687-704	3.8	10
13	Heat detection by the TRPM2 ion channel. <i>Nature</i> , 2020 , 584, E5-E12	50.4	9
12	Rods, cones and calcium. <i>Cell Calcium</i> , 1995 , 18, 275-84	4	8
11	Calcium regulation in neurons: transport processes. <i>Current Opinion in Neurobiology</i> , 1991 , 1, 98-104	7.6	7
10	The Role of Cold-Sensitive Ion Channels in Peripheral Thermosensation. <i>Frontiers in Cellular Neuroscience</i> , 2020 , 14, 262	6.1	6
9	How anchoring proteins shape pain. <i>Pharmacology & Therapeutics</i> , 2014 , 143, 316-22	13.9	5
8	TRPM2 ion channels steer neutrophils towards a source of hydrogen peroxide. <i>Scientific Reports</i> , 2021 , 11, 9339	4.9	2
7	Role of hyperpolarization-activated cyclic nucleotide-gated ion channels in neuropathic pain: a proof-of-concept study of ivabradine in patients with chronic peripheral neuropathic pain. <i>Pain Reports</i> , 2021 , 6, e967	3.5	1
6	Oligodendrocyte HCN2 Channels Regulate Myelin Sheath Length. <i>Journal of Neuroscience</i> , 2021 , 41, 7956-7964	6.7	6
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- 3 Pain Transduction: Gating and Modulation of Ion Channels **2005**, 251-270
- 2 The Cellular and Molecular Basis of the Detection of Pain. *Cell and Molecular Response To Stress*, **2002**, 105-119
- 1 The effects of quinidine on sodium-dependent calcium efflux in isolated rod photoreceptors of the salamander retina. *Pflugers Archiv European Journal of Physiology*, **1990**, 417, 168-73 4.6