Thomas E Decoursey

List of Publications by Citations

117 papers	7,542 citations	48 h-index	85 g-index
125 ext. papers	8,154 ext. citations	8.9 avg, IF	6.2 L-index

#	Paper	IF	Citations
117	Voltage-gated K+ channels in human T lymphocytes: a role in mitogenesis?. *Nature*, **1984**, 307, 465-8	50.4	658
116	Voltage-gated proton channels and other proton transfer pathways. *Physiological Reviews*, **2003**, 83, 475-579	47.9	544
115	A voltage-gated potassium channel in human T lymphocytes. *Journal of Physiology*, **1985**, 358, 197-237	3.9	335
114	Voltage-gated potassium channels are required for human T lymphocyte activation. *Journal of Experimental Medicine*, **1984**, 160, 369-85	16.6	319
113	The voltage dependence of NADPH oxidase reveals why phagocytes need proton channels. *Nature*, **2003**, 422, 531-4	50.4	246
112	Regulation and termination of NADPH oxidase activity. *Cellular and Molecular Life Sciences*, **2005**, 62, 2173-93	10.3	198
111	HVCN1 modulates BCR signal strength via regulation of BCR-dependent generation of reactive oxygen species. *Nature Immunology*, **2010**, 11, 265-72	19.1	164
110	Voltage-gated proton channels: molecular biology, physiology, and pathophysiology of the H(V) family. *Physiological Reviews*, **2013**, 93, 599-652	47.9	152
109	Potential, pH, and arachidonate gate hydrogen ion currents in human neutrophils. *Biophysical Journal*, **1993**, 65, 1590-8	2.9	152
108	Voltage-dependent ion channels in T-lymphocytes. *Journal of Neuroimmunology*, **1985**, 10, 71-95	3.5	148
107	The voltage-activated hydrogen ion conductance in rat alveolar epithelial cells is determined by the pH gradient. *Journal of General Physiology*, **1995**, 105, 861-96	3.4	146
106	pH-dependent inhibition of voltage-gated H(+) currents in rat alveolar epithelial cells by Zn(2+) and other divalent cations. *Journal of General Physiology*, **1999**, 114, 819-38	3.4	143
105	Voltage-gated proton channels maintain pH in human neutrophils during phagocytosis. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 18022-7	11.5	130
104	Hydrogen ion currents in rat alveolar epithelial cells. *Biophysical Journal*, **1991**, 60, 1243-53	2.9	124
103	Aspartate 112 is the selectivity filter of the human voltage-gated proton channel. *Nature*, **2011**, 480, 273-7	50.4	121
102	Simultaneous activation of NADPH oxidase-related proton and electron currents in human neutrophils. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 6885-9	11.5	119
101	Temperature dependence of voltage-gated H+ currents in human neutrophils, rat alveolar epithelial cells, and mammalian phagocytes. *Journal of General Physiology*, **1998**, 112, 503-22	3.4	115

100	Intrinsic gating of inward rectifier in bovine pulmonary artery endothelial cells in the presence or absence of internal Mg2+. *Journal of General Physiology*, **1990**, 96, 109-33	3.4	114
99	Charge compensation during the phagocyte respiratory burst. *Biochimica Et Biophysica Acta - Bioenergetics*, **2006**, 1757, 996-1011	4.6	111
98	Voltage-activated hydrogen ion currents. *Journal of Membrane Biology*, **1994**, 141, 203-23	2.3	110
97	Mitogen induction of ion channels in murine T lymphocytes. *Journal of General Physiology*, **1987**, 89, 405-20	3.4	108
96	NOX5 in human spermatozoa: expression, function, and regulation. *Journal of Biological Chemistry*, **2012**, 287, 9376-88	5.4	104
95	Deuterium isotope effects on permeation and gating of proton channels in rat alveolar epithelium. *Journal of General Physiology*, **1997**, 109, 415-34	3.4	98
94	Two types of potassium channels in murine T lymphocytes. *Journal of General Physiology*, **1987**, 89, 379-404	3.4	95
93	Voltage-gated proton channel in a dinoflagellate. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 18162-7	11.5	86
92	Zinc inhibition of monomeric and dimeric proton channels suggests cooperative gating. *Journal of Physiology*, **2010**, 588, 1435-49	3.9	80
91	Voltage-gated proton channels in microglia. *Progress in Neurobiology*, **2001**, 64, 277-305	10.9	77
90	The pH dependence of NADPH oxidase in human eosinophils. *Journal of Physiology*, **2005**, 569, 419-31	3.9	74
89	HERG-like K+ channels in microglia. *Journal of General Physiology*, **1998**, 111, 781-94	3.4	74
88	Voltage-gated proton channels find their dream job managing the respiratory burst in phagocytes. *Physiology*, **2010**, 25, 27-40	9.8	73
87	pH regulation and beyond: unanticipated functions for the voltage-gated proton channel, HVCN1. *Trends in Cell Biology*, **2011**, 21, 20-8	18.3	72
86	The antibacterial activity of human neutrophils and eosinophils requires proton channels but not BK channels. *Journal of General Physiology*, **2006**, 127, 659-72	3.4	72
85	Properties of single voltage-gated proton channels in human eosinophils estimated by noise analysis and by direct measurement. *Journal of General Physiology*, **2003**, 121, 615-28	3.4	72
84	Interactions between NADPH oxidase-related proton and electron currents in human eosinophils. *Journal of Physiology*, **2001**, 535, 767-81	3.9	70
83	Ion channel expression in PMA-differentiated human THP-1 macrophages. *Journal of Membrane Biology*, **1996**, 152, 141-57	2.3	70

82	Activation of NADPH oxidase-related proton and electron currents in human eosinophils by arachidonic acid. *Journal of Physiology*, **2001**, 535, 783-94	3.9	68
81	Detailed comparison of expressed and native voltage-gated proton channel currents. *Journal of Physiology*, **2008**, 586, 2477-86	3.9	66
80	A pH-stabilizing role of voltage-gated proton channels in IgE-mediated activation of human basophils. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 11020-5	11.5	65
79	Mechanism of K+ channel block by verapamil and related compounds in rat alveolar epithelial cells. *Journal of General Physiology*, **1995**, 106, 745-79	3.4	63
78	Altered K+ channel expression in abnormal T lymphocytes from mice with the lpr gene mutation. *Science*, **1986**, 233, 1197-200	33.3	60
77	Construction and validation of a homology model of the human voltage-gated proton channel hHV1. *Journal of General Physiology*, **2013**, 141, 445-65	3.4	59
76	The gp91phox component of NADPH oxidase is not the voltage-gated proton channel in phagocytes, but it helps. *Journal of Biological Chemistry*, **2001**, 276, 36063-6	5.4	56
75	Sustained activation of proton channels and NADPH oxidase in human eosinophils and murine granulocytes requires PKC but not cPLA2 alpha activity. *Journal of Physiology*, **2007**, 579, 327-44	3.9	55
74	Voltage-gated proton channels. *Cellular and Molecular Life Sciences*, **2008**, 65, 2554-73	10.3	53
73	Upregulation of Kv1.3 K(+) channels in microglia deactivated by TGF-beta. *American Journal of Physiology - Cell Physiology*, **2000**, 279, C1123-34	5.4	53
72	Voltage-activated proton currents in human lymphocytes. *Journal of Physiology*, **2002**, 545, 93-105	3.9	52
71	State-dependent inactivation of K+ currents in rat type II alveolar epithelial cells. *Journal of General Physiology*, **1990**, 95, 617-46	3.4	51
70	Voltage-gated proton channels: whatŠ next?. *Journal of Physiology*, **2008**, 586, 5305-24	3.9	49
69	Enhanced activation of an amino-terminally truncated isoform of the voltage-gated proton channel HVCN1 enriched in malignant B cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 18078-83	11.5	47
68	Identification of Thr29 as a critical phosphorylation site that activates the human proton channel Hvcn1 in leukocytes. *Journal of Biological Chemistry*, **2010**, 285, 5117-21	5.4	47
67	Absence of proton channels in COS-7 cells expressing functional NADPH oxidase components. *Journal of General Physiology*, **2002**, 119, 571-80	3.4	46
66	Potassium currents in rat type II alveolar epithelial cells. *Journal of Physiology*, **1988**, 395, 487-505	3.9	45
65	Voltage-activated proton currents in human THP-1 monocytes. *Journal of Membrane Biology*, **1996**, 152, 131-40	2.3	44

64	Effects of buffer concentration on voltage-gated H+ currents: does diffusion limit the conductance?. *Biophysical Journal*, **1996**, 71, 182-93	2.9	43
63	Selectivity Mechanism of the Voltage-gated Proton Channel, HV1. *Scientific Reports*, **2015**, 5, 10320	4.9	41
62	Temperature dependence of NADPH oxidase in human eosinophils. *Journal of Physiology*, **2003**, 550, 447-58	3.9	41
61	Na(+)-H+ antiport detected through hydrogen ion currents in rat alveolar epithelial cells and human neutrophils. *Journal of General Physiology*, **1994**, 103, 755-85	3.4	41
60	Philosophy of voltage-gated proton channels. *Journal of the Royal Society Interface*, **2014**, 11, 20130799	4.1	39
59	Ion channels in human THP-1 monocytes. *Journal of Membrane Biology*, **1996**, 152, 117-30	2.3	39
58	The intimate and mysterious relationship between proton channels and NADPH oxidase. *FEBS Letters*, **2009**, 583, 7-12	3.8	38
57	Mechanisms of potassium channel block in rat alveolar epithelial cells. *Journal of Pharmacology and Experimental Therapeutics*, **1990**, 255, 459-72	4.7	36
56	Hypothesis: do voltage-gated H(+) channels in alveolar epithelial cells contribute to CO(2) elimination by the lung?. *American Journal of Physiology - Cell Physiology*, **2000**, 278, C1-C10	5.4	34
55	The gp91phox component of NADPH oxidase is not a voltage-gated proton channel. *Journal of General Physiology*, **2002**, 120, 773-9	3.4	32
54	Tryptophan 207 is crucial to the unique properties of the human voltage-gated proton channel, hHV1. *Journal of General Physiology*, **2015**, 146, 343-56	3.4	31
53	Peregrination of the selectivity filter delineates the pore of the human voltage-gated proton channel hHV1. *Journal of General Physiology*, **2013**, 142, 625-40	3.4	30
52	Idiosyncratic gating of HERG-like K+ channels in microglia. *Journal of General Physiology*, **1998**, 111, 795-805	3.4	30
51	Selectivity and gating of the type L potassium channel in mouse lymphocytes. *Journal of General Physiology*, **1991**, 97, 1227-50	3.4	30
50	The Voltage-Gated Proton Channel: A Riddle, Wrapped in a Mystery, inside an Enigma. *Biochemistry*, **2015**, 54, 3250-68	3.2	28
49	Voltage and pH sensing by the voltage-gated proton channel, H1. *Journal of the Royal Society Interface*, **2018**, 15,	4.1	28
48	The intimate and controversial relationship between voltage-gated proton channels and the phagocyte NADPH oxidase. *Immunological Reviews*, **2016**, 273, 194-218	11.3	28
47	Interactions between NADPH oxidase and voltage-gated proton channels: why electron transport depends on proton transport. *FEBS Letters*, **2003**, 555, 57-61	3.8	28

46	Voltage-gated proton channels help regulate pHi in rat alveolar epithelium. *American Journal of Physiology - Lung Cellular and Molecular Physiology*, **2005**, 288, L398-408	5.8	27
45	Four varieties of voltage-gated proton channels. *Frontiers in Bioscience - Landmark*, **1998**, 3, d477-482	2.8	27
44	During the respiratory burst, do phagocytes need proton channels or potassium channels, or both?. *Science Signaling*, **2004**, 2004, pe21	8.8	26
43	The pros and cons of open peer review. *Nature*, **2006**,	50.4	26
42	Permeant ion effects on the gating kinetics of the type L potassium channel in mouse lymphocytes. *Journal of General Physiology*, **1991**, 97, 1251-78	3.4	25
41	Voltage-gated proton channels. *Comprehensive Physiology*, **2012**, 2, 1355-85	7.7	24
40	Common themes and problems of bioenergetics and voltage-gated proton channels. *Biochimica Et Biophysica Acta - Bioenergetics*, **2000**, 1458, 104-19	4.6	24
39	Effects of external Rb+ on inward rectifier K+ channels of bovine pulmonary artery endothelial cells. *Journal of General Physiology*, **1994**, 103, 519-48	3.4	24
38	Oligomerization of the voltage-gated proton channel. *Channels*, **2010**, 4, 260-5	3	21
37	Ion channels in lymphocytes. *Journal of Clinical Immunology*, **1985**, 5, 1-6	5.7	21
36	Identification of a vacuolar proton channel that triggers the bioluminescent flash in dinoflagellates. *PLoS ONE*, **2017**, 12, e0171594	3.7	21
35	Strong glucose dependence of electron current in human monocytes. *American Journal of Physiology - Cell Physiology*, **2012**, 302, C286-95	5.4	20
34	Pharmacology of voltage-gated proton channels. *Current Pharmaceutical Design*, **2007**, 13, 2400-20	3.3	20
33	Insights into the structure and function of HV1 from a meta-analysis of mutation studies. *Journal of General Physiology*, **2016**, 148, 97-118	3.4	20
32	Biophysical properties of the voltage gated proton channel H(V)1. *Environmental Sciences Europe*, **2012**, 1, 605-620	5	19
31	A scheme to account for the effects of Rb+ and K+ on inward rectifier K channels of bovine artery endothelial cells. *Journal of General Physiology*, **1994**, 103, 549-81	3.4	19
30	Hydrophobic gasket mutation produces gating pore currents in closed human voltage-gated proton channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 18951-18961	11.5	19
29	Ion channels in T lymphocytes. *Advances in Experimental Medicine and Biology*, **1987**, 213, 85-101	3.6	18

28	Proton and chloride currents in Chinese hamster ovary cells. *Membrane & Cell Biology*, **1997**, 11, 337-47		18
27	An Electrophysiological Comparison of Voltage-Gated Proton Channels, Other Ion Channels, and Other Proton Channels. *Israel Journal of Chemistry*, **1999**, 39, 409-418	3.4	16
26	Inward rectifier current noise in frog skeletal muscle. *Journal of Physiology*, **1984**, 349, 299-327	3.9	12
25	Consequences of dimerization of the voltage-gated proton channel. *Progress in Molecular Biology and Translational Science*, **2013**, 117, 335-60	4	11
24	Histidine is crucial for pH-dependent gating of the human voltage-gated proton channel, hH1. *Journal of General Physiology*, **2018**, 150, 851-862	3.4	10
23	CrossTalk proposal: Proton permeation through H 1 requires transient protonation of a conserved aspartate in the S1 transmembrane helix. *Journal of Physiology*, **2017**, 595, 6793-6795	3.9	9
22	Structural revelations of the human proton channel. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 13430-1	11.5	9
21	Exotic properties of a voltage-gated proton channel from the snail. *Journal of General Physiology*, **2018**, 150, 835-850	3.4	9
20	Diversity of voltage gated proton channels. *Frontiers in Bioscience - Landmark*, **2003**, 8, s1266-79	2.8	8
19	Neural control of chloride conductance in rat extensor digitorum longus muscle. *Experimental Neurology*, **1978**, 61, 705-9	5.7	8
18	Gating currents indicate complex gating of voltage-gated proton channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 9057-9059	11.5	5
17	It's difficult to publish contradictory findings. *Nature*, **2006**, 439, 784	50.4	5
16	Publishing: Double-blind peer review a double risk. *Nature*, **2015**, 520, 623	50.4	4
15	Analysis of electrophysiological properties and responses of neutrophils. *Methods in Molecular Biology*, **2007**, 412, 139-75	1.4	4
14	Expression and function of voltage gated proton channels (Hv1) in MDA-MB-231 cells. *PLoS ONE*, **2020**, 15, e0227522	3.7	3
13	Characterization and Subcellular Localization of Hv1 in Lingulodinium Polyedrum Confirms its Role in Bioluminescence. *Biophysical Journal*, **2015**, 108, 425a	2.9	3
12	The Voltage-Gated Proton Channel HVCN1 Co-Localizes with B Cell Receptor and Is Involved in Class Switch Recombination in Vivo. *Blood*, **2008**, 112, 707-707	2.2	3
11	Analysis of electrophysiological properties and responses of neutrophils. *Methods in Molecular Biology*, **2014**, 1124, 121-58	1.4	3

10	Voltage-gated proton channels exist in the plasma membrane of human oocytes. *Human Reproduction*, **2019**, 34, 1974-1983	5.7	2
9	Proton Channels are Present in Cell Membranes of the Breast Cancer Cell Line MDA MB 231 and Affect Recovery from an Acid Load. *Biophysical Journal*, **2015**, 108, 587a	2.9	2
8	Science and economy: Don't judge research on economics alone. *Nature*, **2013**, 497, 40	50.4	2
7	Simultaneous Measurement of Phagosome and Plasma Membrane Potentials in Human Neutrophils By Di-8-Anepps and SEER. *Biophysical Journal*, **2010**, 98, 55a	2.9	2
6	Engineered high-affinity zinc binding site reveals gating configurations of a human proton channel. *Journal of General Physiology*, **2020**, 152,	3.4	2
5	Rebuttal from Thomas E. DeCoursey. *Journal of Physiology*, **2017**, 595, 6801	3.9	1
4	Analysis of an electrostatic mechanism for pH dependent gating of the voltage-gated proton channel, H1, supports a contribution of protons to gating charge. *Biochimica Et Biophysica Acta - Bioenergetics*, **2021**, 1862, 148480	4.6	1
3	NIH revamp: US health care at fault. *Nature*, **2011**, 473, 31	50.4	
2	Unintended Consequences at NIH. *Science*, **2009**, 323, 209a-209a	33.3	
1	Competing interests: Follow the money on climate controversy. *Nature*, **2012**, 489, 502	50.4	