Dirk J Snyders

List of Publications by Citations

75 papers	4,138 citations	35 h-index	64 g-index
80 ext. papers	4,403 ext. citations	6.4 avg, IF	5.05 L-index

#	Paper	IF	Citations
75	Class III antiarrhythmic agents have a lot of potential but a long way to go. Reduced effectiveness and dangers of reverse use dependence. *Circulation*, **1990**, 81, 686-90	16.7	532
74	A rapidly activating and slowly inactivating potassium channel cloned from human heart. Functional analysis after stable mammalian cell culture expression. *Journal of General Physiology*, **1993**, 101, 513-43	3.4	232
73	Drug block of I(kr): model systems and relevance to human arrhythmias. *Journal of Cardiovascular Pharmacology*, **2001**, 38, 737-44	3.1	160
72	Heteromultimeric assembly of human potassium channels. Molecular basis of a transient outward current?. *Circulation Research*, **1993**, 72, 1326-36	15.7	154
71	Obligatory heterotetramerization of three previously uncharacterized Kv channel alpha-subunits identified in the human genome. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 7986-91	11.5	142
70	Structure and function of cardiac potassium channels. *Cardiovascular Research*, **1999**, 42, 377-90	9.9	142
69	Stereoselective block of cardiac sodium channels by bupivacaine in guinea pig ventricular myocytes. *Circulation*, **1995**, 92, 3014-24	16.7	142
68	Stereoselective block of a human cardiac potassium channel (Kv1.5) by bupivacaine enantiomers. *Biophysical Journal*, **1995**, 69, 418-27	2.9	140
67	Rapid inactivation determines the rectification and [K+]o dependence of the rapid component of the delayed rectifier K+ current in cardiac cells. *Circulation Research*, **1997**, 80, 782-9	15.7	131
66	Ibutilide, a methanesulfonanilide antiarrhythmic, is a potent blocker of the rapidly activating delayed rectifier K+ current (IKr) in AT-1 cells. Concentration-, time-, voltage-, and use-dependent effects. *Circulation*, **1995**, 91, 1799-806	16.7	121
65	Quinidine delays IK activation in guinea pig ventricular myocytes. *Circulation Research*, **1988**, 62, 1055-8	15.7	116
64	A K+ channel splice variant common in human heart lacks a C-terminal domain required for expression of rapidly activating delayed rectifier current. *Journal of Biological Chemistry*, **1998**, 273, 27231-5	5.4	113
63	Determinants of antiarrhythmic drug action. Electrostatic and hydrophobic components of block of the human cardiac hKv1.5 channel. *Circulation Research*, **1995**, 77, 575-83	15.7	111
62	Functional differences in Kv1.5 currents expressed in mammalian cell lines are due to the presence of endogenous Kv beta 2.1 subunits. *Journal of Biological Chemistry*, **1996**, 271, 2406-12	5.4	106
61	Molecular analysis of a binding site for quinidine in a human cardiac delayed rectifier K+ channel. Role of S6 in antiarrhythmic drug binding. *Circulation Research*, **1996**, 78, 1105-14	15.7	97
60	The contribution of genes involved in potassium-recycling in the inner ear to noise-induced hearing loss. *Human Mutation*, **2006**, 27, 786-95	4.7	92
59	A novel mutation (T65P) in the PAS domain of the human potassium channel HERG results in the long QT syndrome by trafficking deficiency. *Journal of Biological Chemistry*, **2002**, 277, 48610-6	5.4	83

58	Electrophysiological and pharmacological correspondence between Kv4.2 current and rat cardiac transient outward current. *Cardiovascular Research*, **1997**, 33, 540-7	9.9	79
57	Gating of shaker-type channels requires the flexibility of S6 caused by prolines. *Journal of Biological Chemistry*, **2003**, 278, 50724-31	5.4	72
56	Class III antiarrhythmic effects of zatebradine. Time-, state-, use-, and voltage-dependent block of hKv1.5 channels. *Circulation*, **1996**, 94, 562-70	16.7	72
55	Gambierol, a toxin produced by the dinoflagellate Gambierdiscus toxicus, is a potent blocker of voltage-gated potassium channels. *Toxicon*, **2008**, 51, 974-83	2.8	71
54	Kv channel gating requires a compatible S4-S5 linker and bottom part of S6, constrained by non-interacting residues. *Journal of General Physiology*, **2008**, 132, 667-80	3.4	63
53	Effects of antiarrhythmic drugs on cloned cardiac voltage-gated potassium channels expressed in Xenopus oocytes. *Naunyn-Schmiedebergs Archives of Pharmacology*, **2000**, 362, 22-31	3.4	60
52	Molecular biology of the voltage-gated potassium channels of the cardiovascular system. *Journal of Cardiovascular Electrophysiology*, **1993**, 4, 68-80	2.7	59
51	Molecular determinants of stereoselective bupivacaine block of hKv1.5 channels. *Circulation Research*, **1997**, 81, 1053-64	15.7	57
50	Block of human cardiac Kv1.5 channels by loratadine: voltage-, time- and use-dependent block at concentrations above therapeutic levels. *Cardiovascular Research*, **1997**, 35, 341-50	9.9	52
49	A polyether biotoxin binding site on the lipid-exposed face of the pore domain of Kv channels revealed by the marine toxin gambierol. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 9896-901	11.5	49
48	Electrically silent Kv subunits: their molecular and functional characteristics. *Physiology*, **2012**, 27, 73-84	9.8	49
47	Kv2.1 and silent Kv subunits underlie the delayed rectifier K+ current in cultured small mouse DRG neurons. *American Journal of Physiology - Cell Physiology*, **2009**, 296, C1271-8	5.4	45
46	The S4-S5 linker of KCNQ1 channels forms a structural scaffold with the S6 segment controlling gate closure. *Journal of Biological Chemistry*, **2011**, 286, 717-25	5.4	43
45	Mechanism of block of a human cardiac potassium channel by terfenadine racemate and enantiomers. *British Journal of Pharmacology*, **1995**, 115, 267-74	8.6	42
44	Distinct domains of the voltage-gated K+ channel Kv beta 1.3 beta-subunit affect voltage-dependent gating. *American Journal of Physiology - Cell Physiology*, **1998**, 274, C1485-95	5.4	41
43	Being flexible: the voltage-controllable activation gate of kv channels. *Frontiers in Pharmacology*, **2012**, 3, 168	5.6	40
42	KCNQ1 channels voltage dependence through a voltage-dependent binding of the S4-S5 linker to the pore domain. *Journal of Biological Chemistry*, **2011**, 286, 707-16	5.4	39
41	Role of the S6 C-terminus in KCNQ1 channel gating. *Journal of Physiology*, **2007**, 585, 325-37	3.9	37

40	Dual effect of phosphatidylinositol (4,5)-bisphosphate PIP(2) on Shaker K(+) [corrected] channels. *Journal of Biological Chemistry*, **2012**, 287, 36158-67	5.4	35
39	Molecular mechanism for depolarization-induced modulation of Kv channel closure. *Journal of General Physiology*, **2012**, 140, 481-93	3.4	34
38	Alinidine modifies the pacemaker current in sheep Purkinje fibers. *Pflugers Archiv European Journal of Physiology*, **1987**, 410, 83-91	4.6	30
37	Purification, molecular cloning and functional characterization of HelaTx1 (Heterometrus laoticus): the first member of a new EKTX subfamily. *Biochemical Pharmacology*, **2012**, 83, 1307-17	6	29
36	Kv3.1 uses a timely resurgent K(+) current to secure action potential repolarization. *Nature Communications*, **2015**, 6, 10173	17.4	28
35	Differential modulation of Kv4 kinetics by KCHIP1 splice variants. *Molecular and Cellular Neurosciences*, **2003**, 24, 357-66	4.8	27
34	Temperature and voltage dependence of sodium channel blocking and unblocking by O-demethyl encainide in isolated guinea pig myocytes. *Journal of Cardiovascular Pharmacology*, **1989**, 13, 826-35	3.1	26
33	Domain analysis of Kv6.3, an electrically silent channel. *Journal of Physiology*, **2005**, 568, 737-47	3.9	25
32	Mechanisms of block of a human cloned potassium channel by the enantiomers of a new bradycardic agent: S-16257-2 and S-16260-2. *British Journal of Pharmacology*, **1996**, 117, 1293-301	8.6	23
31	The ladder-shaped polyether toxin gambierol anchors the gating machinery of Kv3.1 channels in the resting state. *Journal of General Physiology*, **2013**, 141, 359-69	3.4	21
30	Evidence for multiple open and inactivated states of the hKv1.5 delayed rectifier. *Biophysical Journal*, **1998**, 75, 183-95	2.9	21
29	Functional effects of a KCNQ1 mutation associated with the long QT syndrome. *Cardiovascular Research*, **2006**, 70, 466-74	9.9	20
28	Conserved negative charges in the N-terminal tetramerization domain mediate efficient assembly of Kv2.1 and Kv2.1/Kv6.4 channels. *Journal of Biological Chemistry*, **2009**, 284, 31625-34	5.4	19
27	Mutations throughout the S6 region of the hKv1.5 channel alter the stability of the activation gate. *American Journal of Physiology - Cell Physiology*, **2002**, 282, C161-71	5.4	19
26	The anticonvulsant retigabine suppresses neuronal K2-mediated currents. *Scientific Reports*, **2016**, 6, 35080	4.9	17
25	HERG mutation predicts short QT based on channel kinetics but causes long QT by heterotetrameric trafficking deficiency. *Cardiovascular Research*, **2005**, 67, 467-75	9.9	17
24	The electrically silent Kv6.4 subunit confers hyperpolarized gating charge movement in Kv2.1/Kv6.4 heterotetrameric channels. *PLoS ONE*, **2012**, 7, e37143	3.7	14
23	Coupling of voltage sensing to channel opening reflects intrasubunit interactions in kv channels. *Journal of General Physiology*, **2005**, 125, 71-80	3.4	14

22	Functional antagonism of voltage-gated K+ channel subunits in the developing brain ventricular system. *Development (Cambridge)*, **2016**, 143, 4249-4260	6.6	13
21	Benzocaine enhances and inhibits the K+ current through a human cardiac cloned channel (Kv1.5). *Cardiovascular Research*, **1999**, 42, 510-20	9.9	13
20	The subfamily-specific interaction between Kv2.1 and Kv6.4 subunits is determined by interactions between the N- and C-termini. *PLoS ONE*, **2014**, 9, e98960	3.7	12
19	Kv3 channels contribute to the delayed rectifier current in small cultured mouse dorsal root ganglion neurons. *American Journal of Physiology - Cell Physiology*, **2012**, 303, C406-15	5.4	11
18	Voltage-gated delayed rectifier K v 1-subunits may serve as distinctive markers for enteroglial cells with different phenotypes in the murine ileum. *Neuroscience Letters*, **2009**, 461, 80-4	3.3	11
17	A Kv channel with an altered activation gate sequence displays both "fast" and "slow" activation kinetics. *American Journal of Physiology - Cell Physiology*, **2008**, 294, C1476-84	5.4	10
16	Modulation of Closed-State Inactivation in Kv2.1/Kv6.4 Heterotetramers as Mechanism for 4-AP Induced Potentiation. *PLoS ONE*, **2015**, 10, e0141349	3.7	9
15	The rate-dependent biophysical properties of the LQT1 H258R mutant are counteracted by a dominant negative effect on channel trafficking. *Journal of Molecular and Cellular Cardiology*, **2010**, 48, 1096-104	5.8	9
14	Independent movement of the voltage sensors in K2.1/K6.4 heterotetramers. *Scientific Reports*, **2017**, 7, 41646	4.9	6
13	Targeted deletion of the Kv6.4 subunit causes male sterility due to disturbed spermiogenesis. *Reproduction, Fertility and Development*, **2017**, 29, 1567-1575	1.8	5
12	Hydrophobic Drug/Toxin Binding Sites in Voltage-Dependent K and Na Channels. *Frontiers in Pharmacology*, **2020**, 11, 735	5.6	4
11	Voltage-sensor conformation shapes the intra-membrane drug binding site that determines gambierol affinity in Kv channels. *Neuropharmacology*, **2016**, 107, 160-167	5.5	4
10	Mutations in the S6 gate isolate a late step in the activation pathway and reduce 4-AP sensitivity in shaker K(v) channel. *Biophysical Journal*, **2014**, 106, 134-44	2.9	4
9	Determining the correct stoichiometry of Kv2.1/Kv6.4 heterotetramers, functional in multiple stoichiometrical configurations. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 9365-9376	11.5	4
8	Dromedary immune response and specific Kv2.1 antibody generation using a specific immunization approach. *International Journal of Biological Macromolecules*, **2016**, 93, 167-171	7.9	3
7	The contribution of Kv2.2-mediated currents decreases during the postnatal development of mouse dorsal root ganglion neurons. *Physiological Reports*, **2016**, 4, e12731	2.6	3
6	Gambierol and n-alkanols inhibit Shaker Kv channel via distinct binding sites outside the K(+) pore. *Toxicon*, **2016**, 120, 57-60	2.8	3
5	Pharmacological Profile of the Sodium Current in Human Stem Cell-Derived Cardiomyocytes Compares to Heterologous Nav1.5+ Model. *Frontiers in Pharmacology*, **2019**, 10, 1374	5.6	3

4	The resting membrane potential of hSC-CM in a syncytium is more hyperpolarised than that of isolated cells. *Channels*, **2021**, 15, 239-252	3	3
3	Alkanols inhibit voltage-gated K(+) channels via a distinct gating modifying mechanism that prevents gate opening. *Scientific Reports*, **2015**, 5, 17402	4.9	2
2	Optical Mapping in hiPSC-CM and Zebrafish to Resolve Cardiac Arrhythmias. *Hearts*, **2020**, 1, 181-199	0.6	1
1	The Mechanism of Action of Microalgal Toxins Interacting with NaV and KV Channels **2014**, 3-34		