Dirk J Snyders

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1025474/publications.pdf

Version: 2024-02-01

79 papers	4,838 citations	94269 37 h-index	91712 69 g-index
80 all docs	80 docs citations	80 times ranked	3117 citing authors

#	Article	IF	Citations
1	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, 686-690.	1.6	599
2	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, 513-543.	0.9	248
3	Structure and function of cardiac potassium channels. Cardiovascular Research, 1999, 42, 377-390.	1.8	174
4	Stereoselective Block of Cardiac Sodium Channels by Bupivacaine in Guinea Pig Ventricular Myocytes. Circulation, 1995, 92, 3014-3024.	1.6	174
5	Heteromultimeric assembly of human potassium channels. Molecular basis of a transient outward current?. Circulation Research, 1993, 72, 1326-1336.	2.0	171
6	Drug Block of I Kr : Model Systems and Relevance to Human Arrhythmias. Journal of Cardiovascular Pharmacology, 2001, 38, 737-744.	0.8	171
7	Stereoselective block of a human cardiac potassium channel (Kv1.5) by bupivacaine enantiomers. Biophysical Journal, 1995, 69, 418-427.	0.2	158
8	Ibutilide, a Methanesulfonanilide Antiarrhythmic, Is a Potent Blocker of the Rapidly Activating Delayed Rectifier K ⁺ Current (I _{Kr}) in AT-1 Cells. Circulation, 1995, 91, 1799-1806.	1.6	158
9	Obligatory heterotetramerization of three previously uncharacterized Kv channel Â-subunits identified in the human genome. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 7986-7991.	3.3	153
10	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, 782-789.	2.0	146
11	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, 27231-27235.	1.6	132
12	Functional Differences in Kv1.5 Currents Expressed in Mammalian Cell Lines Are Due to the Presence of Endogenous KvÎ²2.1 Subunits. Journal of Biological Chemistry, 1996, 271, 2406-2412.	1.6	123
13	Quinidine delays IK activation in guinea pig ventricular myocytes.. Circulation Research, 1988, 62, 1055-1058.	2.0	121
14	Determinants of Antiarrhythmic Drug Action. Circulation Research, 1995, 77, 575-583.	2.0	117
15	Molecular Analysis of a Binding Site for Quinidine in a Human Cardiac Delayed Rectifier K + Channel. Circulation Research, 1996, 78, 1105-1114.	2.0	116
16	The contribution of genes involved in potassium-recycling in the inner ear to noise-induced hearing loss. Human Mutation, 2006, 27, 786-795.	1.1	109
17	Electrophysiological and pharmacological correspondence between Kv4.2 current and rat cardiac transient outward current. Cardiovascular Research, 1997, 33, 540-547.	1.8	93
18	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, 48610-48616.	1.6	90

#	Article	IF	Citations
19	Class III Antiarrhythmic Effects of Zatebradine. Circulation, 1996, 94, 562-570.	1.6	86
20	Gambierol, a toxin produced by the dinoflagellate Gambierdiscus toxicus, is a potent blocker of voltage-gated potassium channels. Toxicon, 2008, 51, 974-983.	0.8	83
21	Gating of Shaker-type Channels Requires the Flexibility of S6 Caused by Prolines. Journal of Biological Chemistry, 2003, 278, 50724-50731.	1.6	79
22	Electrically Silent Kv Subunits: Their Molecular and Functional Characteristics. Physiology, 2012, 27, 73-84.	1.6	73
23	Effects of antiarrhythmic drugs on cloned cardiac voltage-gated potassium channels expressed in Xenopus oocytes. Naunyn-Schmiedeberg's Archives of Pharmacology, 2000, 362, 22-31.	1.4	71
24	Molecular Determinants of Stereoselective Bupivacaine Block of hKv1.5 Channels. Circulation Research, 1997, 81, 1053-1064.	2.0	70
25	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, 667-680.	0.9	69
26	Molecular Biology of the Voltage-Gated Potassium Channels of the Cardiovascular System. Journal of Cardiovascular Electrophysiology, 1993, 4, 68-80.	0.8	67
27	Mechanism of block of a human cardiac potassium channel by terfenadine racemate and enantiomers. British Journal of Pharmacology, 1995, 115, 267-274.	2.7	57
28	Block of human cardiac Kv1.5 channels by loratadine: voltage-, time- and use-dependent block at concentrations above therapeutic levels. Cardiovascular Research, 1997, 35, 341-350.	1.8	56
29	K_v2.1 and silent K_v subunits underlie the delayed rectifier K⁺ current in cultured small mouse DRG neurons. American Journal of Physiology - Cell Physiology, 2009, 296, C1271-C1278.	2.1	55
30	Kv3.1 uses a timely resurgent K+ current to secure action potential repolarization. Nature Communications, 2015, 6, 10173.	5.8	54
31	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, 9896-9901.	3.3	52
32	The S4-S5 Linker of KCNQ1 Channels Forms a Structural Scaffold with the S6 Segment Controlling Gate Closure. Journal of Biological Chemistry, 2011, 286, 717-725.	1.6	50
33	KCNQ1 Channels Voltage Dependence through a Voltage-dependent Binding of the S4-S5 Linker to the Pore Domain. Journal of Biological Chemistry, 2011, 286, 707-716.	1.6	49
34	Being Flexible: The Voltage-Controllable Activation Gate of Kv Channels. Frontiers in Pharmacology, 2012, 3, 168.	1.6	49
35	Role of the S6 Câ€terminus in KCNQ1 channel gating. Journal of Physiology, 2007, 585, 325-337.	1.3	44
36	Distinct domains of the voltage-gated K⁺ channel KvÎ²1.3 Î²-subunit affect voltage-dependent gating. American Journal of Physiology - Cell Physiology, 1998, 274, C1485-C1495.	2.1	43

#	Article	IF	Citations
37	Molecular mechanism for depolarization-induced modulation of Kv channel closure. Journal of General Physiology, 2012, 140, 481-493.	0.9	39
38	Dual Effect of Phosphatidyl (4,5)-Bisphosphate PIP2 on Shaker K+ Channels. Journal of Biological Chemistry, 2012, 287, 36158-36167.	1.6	37
39	Alinidine modifies the pacemaker current in sheep Purkinje fibers. Pflugers Archiv European Journal of Physiology, 1987, 410, 83-91.	1.3	32
40	Purification, molecular cloning and functional characterization of HelaTx1 (Heterometrus laoticus): The first member of a new Îº-KTX subfamily. Biochemical Pharmacology, 2012, 83, 1307-1317.	2.0	32
41	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.	1.1	31
42	Differential modulation of Kv4 kinetics by KCHIP1 splice variants. Molecular and Cellular Neurosciences, 2003, 24, 357-366.	1.0	28
43	Domain analysis of Kv6.3, an electrically silent channel. Journal of Physiology, 2005, 568, 737-747.	1.3	28
44	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, 826-835.	0.8	26
45	Mechanisms of block of a human cloned potassium channel by the enantiomers of a new bradycardic agent: Sâ€16257â€2 and Sâ€16260â€2. British Journal of Pharmacology, 1996, 117, 1293-1301.	2.7	26
46	Functional effects of a KCNQ1 mutation associated with the long QT syndrome. Cardiovascular Research, 2006, 70, 466-474.	1.8	25
47	The anticonvulsant retigabine suppresses neuronal KV2-mediated currents. Scientific Reports, 2016, 6, 35080.	1.6	25
48	The ladder-shaped polyether toxin gambierol anchors the gating machinery of Kv3.1 channels in the resting state. Journal of General Physiology, 2013, 141, 359-369.	0.9	24
49	Evidence for Multiple Open and Inactivated States of the hKv1.5 Delayed Rectifier. Biophysical Journal, 1998, 75, 183-195.	0.2	23
50	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, 31625-31634.	1.6	23
51	The Electrically Silent Kv6.4 Subunit Confers Hyperpolarized Gating Charge Movement in Kv2.1/Kv6.4 Heterotetrameric Channels. PLoS ONE, 2012, 7, e37143.	1.1	21
52	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-C171.	2.1	19
53	HERG mutation predicts short QT based on channel kinetics but causes long QT by heterotetrameric trafficking deficiency. Cardiovascular Research, 2005, 67, 467-475.	1.8	19
54	Modulation of Closedâ^'State Inactivation in Kv2.1/Kv6.4 Heterotetramers as Mechanism for 4â^'AP Induced Potentiation. PLoS ONE, 2015, 10, e0141349.	1.1	19

#	Article	IF	Citations
55	Functional antagonism of alpha-subunits of Kv channel in developing brain ventricular system. Development (Cambridge), 2016, 143, 4249-4260.	1.2	17
56	Benzocaine enhances and inhibits the K+ current through a human cardiac cloned channel (Kv1.5). Cardiovascular Research, 1999, 42, 510-520.	1.8	16
57	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.	3.3	16
58	Coupling of Voltage Sensing to Channel Opening Reflects Intrasubunit Interactions in Kv Channels. Journal of General Physiology, 2005, 125, 71-80.	0.9	15
59	Voltage-gated delayed rectifier Kv1-subunits may serve as distinctive markers for enteroglial cells with different phenotypes in the murine ileum. Neuroscience Letters, 2009, 461, 80-84.	1.0	13
60	A Kv channel with an altered activation gate sequence displays both â€œfastâ€•and â€œslowâ€•activation kinetics. American Journal of Physiology - Cell Physiology, 2008, 294, C1476-C1484.	2.1	12
61	K_v3 channels contribute to the delayed rectifier current in small cultured mouse dorsal root ganglion neurons. American Journal of Physiology - Cell Physiology, 2012, 303, C406-C415.	2.1	12
62	Targeted deletion of the Kv6.4 subunit causes male sterility due to disturbed spermiogenesis. Reproduction, Fertility and Development, 2017, 29, 1567.	0.1	11
63	Hydrophobic Drug/Toxin Binding Sites in Voltage-Dependent K+ and Na+ Channels. Frontiers in Pharmacology, 2020, 11, 735.	1.6	11
64	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, 1096-1104.	0.9	10
65	Constitutive, Basal, and Î²-Alanine-Mediated Activation of the Human Mas-Related G Protein-Coupled Receptor D Induces Release of the Inflammatory Cytokine IL-6 and Is Dependent on NF-ÎºB Signaling. International Journal of Molecular Sciences, 2021, 22, 13254.	1.8	10
66	The resting membrane potential of hSC-CM in a syncytium is more hyperpolarised than that of isolated cells. Channels, 2021, 15, 239-252.	1.5	9
67	Mutations in the S6 Gate Isolate a Late Step in the Activation Pathway and Reduce 4-AP Sensitivity in Shaker Kv Channel. Biophysical Journal, 2014, 106, 134-144.	0.2	8
68	Pharmacological Profile of the Sodium Current in Human Stem Cell-Derived Cardiomyocytes Compares to Heterologous Nav1.5+Î²1 Model. Frontiers in Pharmacology, 2019, 10, 1374.	1.6	8
69	The contribution of Kv2.2-mediated currents decreases during the postnatal development of mouse dorsal root ganglion neurons. Physiological Reports, 2016, 4, e12731.	0.7	7
70	Independent movement of the voltage sensors in KV2.1/KV6.4 heterotetramers. Scientific Reports, 2017, 7, 41646.	1.6	7
71	Voltage-sensor conformation shapes the intra-membrane drug binding site that determines gambierol affinity in Kv channels. Neuropharmacology, 2016, 107, 160-167.	2.0	5
72	Gambierol and n-alkanols inhibit Shaker Kv channel via distinct binding sites outside the K+ pore. Toxicon, 2016, 120, 57-60.	0.8	3

#	Article	IF	Citations
73	Dromedary immune response and specific Kv2.1 antibody generation using a specific immunization approach. International Journal of Biological Macromolecules, 2016, 93, 167-171.	3.6	3
74	Morpho-functional comparison of differentiation protocols to create iPSC-derived cardiomyocytes. Biology Open, 2022, 11, .	0.6	3
75	Alkanols inhibit voltage-gated K+ channels via a distinct gating modifying mechanism that prevents gate opening. Scientific Reports, 2015, 5, 17402.	1.6	2
76	Optical Mapping in hiPSC-CM and Zebrafish to Resolve Cardiac Arrhythmias. Hearts, 2020, 1, 181-199.	0.4	2
77	Gate Closure in Kv1.5 Channels is not Dependent on the Status of the Selectivity-Filter. Biophysical Journal, 2011, 100, 285a.	0.2	0
78	The Mechanism of Action of Microalgal Toxins Interacting with NaV and KV Channels. , 2014, , 3-34.		0
79	Offsetting Voltage-Dependent Kv1.5 Channel Opening Through Charged Residue Substitutions on Top of the First Transmembrane Segment. Bioelectricity, 0, , .	0.6	0