Peter C Ruben

List of Publications by Year
in descending order

83 papers	3,137 citations	257450 24 h-index	168389 53 g-index
93 all docs	93 docs citations	93 times ranked	4156 citing authors

#	Article	IF	Citations
1	Cannabidiol and Sodium Channel Pharmacology: General Overview, Mechanism, and Clinical Implications. Neuroscientist, 2022, 28, 318-334.	3.5	23
2	Late sodium current: incomplete inactivation triggers seizures, myotonias, arrhythmias, and pain syndromes. Journal of Physiology, 2022, 600, 2835-2851.	2.9	14
3	Protein Kinases Mediate Anti-Inflammatory Effects of Cannabidiol and Estradiol Against High Glucose in Cardiac Sodium Channels. Frontiers in Pharmacology, 2021, 12, 668657.	3.5	14
4	Cannabidiol inhibits the skeletal muscle Nav1.4 by blocking its pore and by altering membrane elasticity. Journal of General Physiology, 2021, 153, .	1.9	38
5	B-PO05-022 CLINICAL AND FUNCTIONAL CHARACTERIZATION OF SCN5A VARIANTS LINKED TO ADRENERGIC VENTRICULAR ARRHYTHMIA: A MULTICENTER STUDY. Heart Rhythm, 2021, 18, S380.	0.7	1
6	Persistent sodium currents in SCN1A developmental and degenerative epileptic dyskinetic encephalopathy. Brain Communications, 2021, 3, fcab235.	3.3	12
7	The L1624Q Variant in SCN1A Causes Familial Epilepsy Through a Mixed Gain and Loss of Channel Function. Frontiers in Pharmacology, 2021, 12, 788192.	3.5	3
8	Protective Effect of Cannabidiol Against Oxidative Stress and Cytotoxicity Evoked by High Glucose in Cardiac Voltage-Gated Sodium Channels. Biophysical Journal, 2020, 118, 578a.	0.5	1
9	Biophysical Characterization of a Novel SCN5A Mutation Associated With an Atypical Phenotype of Atrial and Ventricular Arrhythmias and Sudden Death. Frontiers in Physiology, 2020, 11, 610436.	2.8	12
10	Mechanism of Sodium Channel Inhibition by Cannabidiol. Biophysical Journal, 2020, 118, 499a.	0.5	0
11	Say Cheese: Structure of the Cardiac Electrical Engine Is Captured. Trends in Biochemical Sciences, 2020, 45, 369-371.	7.5	13
12	Cannabidiol protects against high glucoseâ€induced oxidative stress and cytotoxicity in cardiac voltageâ€gated sodium channels. British Journal of Pharmacology, 2020, 177, 2932-2946.	5.4	38
13	Cannabidiol Affects Chain Packing in Lipid Membranes. Biophysical Journal, 2020, 118, 389a.	0.5	3
14	E1784K, the most common Brugada syndrome and long-QT syndrome type 3 mutant, disrupts sodium channel inactivation through two separate mechanisms. Journal of General Physiology, 2020, 152, .	1.9	10
15	Cannabidiol interactions with voltage-gated sodium channels. ELife, 2020, 9, .	6.0	40
16	Targeting of NAV1.6 and NAV1.2 to Inhibit Excitatory vs Inhibitory Neural Circuits. Biophysical Journal, 2020, 118, 499a-500a.	0.5	0
17	SCN5A mutations in 442 neonates and children: Genotype-phenotype correlation and identification of higher-risk subgroups. Archives of Cardiovascular Diseases Supplements, 2019, 11, e381-e382.	0.0	0
18	Voltage gated sodium channels in cancer and their potential mechanisms of action. Channels, 2019, 13, 400-409.	2.8	43

#	Article	IF	Citations
19	Case studies in neuroscience: a novel amino acid duplication in the NH₂-terminus of the brain sodium channel Na_V1.1 underlying Dravet syndrome. Journal of Neurophysiology, 2019, 122, 1975-1980.	1.8	1
20	Functional Genomics of Epilepsy and Associated Neurodevelopmental Disorders Using Simple Animal Models: From Genes, Molecules to Brain Networks. Frontiers in Cellular Neuroscience, 2019, 13, 556.	3.7	17
21	pH Modulation of Voltage-Gated Sodium Channels. Handbook of Experimental Pharmacology, 2018, 246, 147-160.	1.8	16
22	Effects of Cannabidiol on Human Nav Channels. Biophysical Journal, 2018, 114, 636a.	0.5	0
23	The efficacy of Ranolazine on E1784K is altered by temperature and calcium. Scientific Reports, 2018, 8, 3643.	3.3	14
24	A Mixed Periodic Paralysis & Myotonia Mutant, P1158S, Imparts pH-Sensitivity in Skeletal Muscle Voltage-gated Sodium Channels. Scientific Reports, 2018, 8, 6304.	3.3	11
25	Arrhythmogenic triggers associated with Sudden Cardiac Death. Channels, 2018, 12, 76-77.	2.8	1
26	Effects of acidosis on neuronal voltage-gated sodium channels: Nav1.1 and Nav1.3. Channels, 2018, 12, 367-377.	2.8	17
27	Inhibitory effects of cannabidiol on voltage-dependent sodium currents. Journal of Biological Chemistry, 2018, 293, 16546-16558.	3.4	136
28	SCN5A mutations in 442 neonates and children: genotypeâ€“phenotype correlation and identification of higher-risk subgroups. European Heart Journal, 2018, 39, 2879-2887.	2.2	33
29	Mixed Periodic Paralysis & Myotonia Mutant Imparts pH Sensitivity in NaV1.4. Biophysical Journal, 2017, 112, 241a.	0.5	0
30	Compound heterozygous TRPV4 mutations in two siblings with a complex phenotype including severe intellectual disability and neuropathy. American Journal of Medical Genetics, Part A, 2017, 173, 3087-3092.	1.2	13
31	Differential calcium sensitivity in Na_V1.5 mixed syndrome mutants. Journal of Physiology, 2017, 595, 6165-6186.	2.9	16
32	Depolarization of the conductance-voltage relationship in the NaV1.5 mutant, E1784K, is due to altered fast inactivation. PLoS ONE, 2017, 12, e0184605.	2.5	14
33	Effects of Amiodarone and N-desethylamiodarone on Cardiac Voltage-Gated Sodium Channels. Frontiers in Pharmacology, 2016, 7, 39.	3.5	31
34	Intracellular Calcium Differentially affects SCN5A Mixed Syndrome Mutations. Biophysical Journal, 2016, 110, 109a.	0.5	0
35	The Effects of Amiodarone and N-Desethylamiodarone on Cardiac Voltage-Gated Sodium Channels. Biophysical Journal, 2016, 110, 113a.	0.5	0
36	Exome Sequencing and the Management of Neurometabolic Disorders. New England Journal of Medicine, 2016, 374, 2246-2255.	27.0	254

#	Article	IF	Citations
37	Loss-of-function mutations inSCN4Acause severe foetal hypokinesia or â€˜classicalâ€™ congenital myopathy. Brain, 2016, 139, 674-691.	7.6	100
38	Triggers for arrhythmogenesis in the Brugada and long QT 3 syndromes. Progress in Biophysics and Molecular Biology, 2016, 120, 77-88.	2.9	31
39	Homologous Domains Mediate Distinct Gating Functions in EAG vs. Cyclic-Nucleotide Gated Channels. Biophysical Journal, 2015, 108, 276a-277a.	0.5	0
40	Differential thermosensitivity in mixed syndrome cardiac sodium channel mutants. Journal of Physiology, 2015, 593, 4201-4223.	2.9	34
41	MG-115â€…Compound heterozygous SCN4A mutation underlies severe congenital hypotonia and biophysical alteration in the encoded voltage-gated NAV1.4 sodium channel. Journal of Medical Genetics, 2015, 52, A3.2-A4.	3.2	0
42	Acidosis: A Possible Trigger for Brugada Syndrome Associated Arrhythmia. Biophysical Journal, 2014, 106, 327a.	0.5	2
43	Differential Thermosensitivity in Nav1.5 Mutations Associated with Long QT and Brugada Syndromes. Biophysical Journal, 2014, 106, 327a-328a.	0.5	0
44	Introduction to Sodium Channels. Handbook of Experimental Pharmacology, 2014, 221, 1-6.	1.8	18
45	Proton Modulation of Cardiac I Na: A Potential Arrhythmogenic Trigger. Handbook of Experimental Pharmacology, 2014, 221, 169-181.	1.8	12
46	Proton Modulation of Ranolazine Effects on Slow Inactivation in Sodium Channels. Biophysical Journal, 2013, 104, 133a-134a.	0.5	0
47	Effects of the antianginal drug, ranolazine, on the brain sodium channel <scp>N</scp>a_V1.2 and its modulation by extracellular protons. British Journal of Pharmacology, 2013, 169, 704-716.	5.4	25
48	Proton Sensors in the Pore Domain of the Cardiac Voltage-gated Sodium Channel. Journal of Biological Chemistry, 2013, 288, 4782-4791.	3.4	27
49	A thermosensitive mutation alters the effects of lacosamide on slow inactivation in neuronal voltage-gated sodium channels, NaV1.2. Frontiers in Pharmacology, 2013, 4, 121.	3.5	4
50	A hot topic. Channels, 2012, 6, 75-85.	2.8	14
51	Ranolazine Effects on NaV1.2 and Modulation by pH. Biophysical Journal, 2012, 102, 323a-324a.	0.5	0
52	Proton Modulation of Gating Currents in the Cardiac Voltage-Gated Sodium Channel, NaV1.5. Biophysical Journal, 2012, 102, 326a-327a.	0.5	1
53	Acidosis Differentially Modulates Inactivation in NaV1.2, NaV1.4, and NaV1.5 Channels. Frontiers in Pharmacology, 2012, 3, 109.	3.5	40
54	A thermoprotective role of the sodium channel Î²₁ subunit is lost with the Î²₁(C121W) mutation. Epilepsia, 2012, 53, 494-505.	5.1	24

#	Article	IF	Citations
55	Turret Histidines in pH Modulation of the Cardiac Voltage-Gated Sodium Channel. Biophysical Journal, 2011, 100, 422a.	0.5	2
56	C121W Implicated in GEFS+ is a Thermosensitive Sodium Channel Mutation. Biophysical Journal, 2011, 100, 423a.	0.5	0
57	Biophysical costs associated with tetrodotoxin resistance in the sodium channel pore of the garter snake, Thamnophis sirtalis. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 33-43.	1.6	30
58	The Biophysical Costs Associated With Tetrodotoxin Resistance in the Garter Snake, Thamnophis Sirtalis. Biophysical Journal, 2010, 98, 8a.	0.5	1
59	pH-Dependent Regulation of rNaV1.2 Channel Inactivation. Biophysical Journal, 2009, 96, 251a.	0.5	1
60	Action potential generation requires a high sodium channel density in the axon initial segment. Nature Neuroscience, 2008, 11, 178-186.	14.8	592
61	Biophysical defects in voltage-gated sodium channels associated with Long QT and Brugada syndromes. Channels, 2008, 2, 70-80.	2.8	18
62	Differential Interactions of Na+ Channel Toxins with T-type Ca2+ Channels. Journal of General Physiology, 2008, 132, 101-113.	1.9	19
63	Interaction between voltage-gated sodium channels and the neurotoxin, tetrodotoxin. Channels, 2008, 2, 407-412.	2.8	138
64	Charge Immobilization of Skeletal Muscle Na+ Channels: Role of Residues in the Inactivation Linker. Biophysical Journal, 2007, 93, 1519-1533.	0.5	12
65	Methods for Studying Voltage-Gated Sodium Channels in Heterologous Expression Systems. , 2006, 129, 163-186.		3
66	A potassium channel (Kv4) cloned from the heart of the tunicate Ciona intestinalis and its modulation by a KChIP subunit. Journal of Experimental Biology, 2006, 209, 731-747.	1.7	9
67	Evolutionary diversification of TTX-resistant sodium channels in a predatorâ€“prey interaction. Nature, 2005, 434, 759-763.	27.8	206
68	K-Aggravated Myotonia Mutations at Residue G1306 Differentially Alter Deactivation Gating of Human Skeletal Muscle Sodium Channels. Cellular and Molecular Neurobiology, 2005, 25, 1075-1092.	3.3	6
69	Temperature-sensitive defects in paramyotonia congenita mutants R1448C and T1313M. Muscle and Nerve, 2004, 30, 277-288.	2.2	27
70	5HT1A Serotonin Receptor Agonists Inhibit Plasmodium falciparum by Blocking a MembraneChannel. Antimicrobial Agents and Chemotherapy, 2003, 47, 3806-3809.	3.2	15
71	Negative charges in the DIII-DIV linker of human skeletal muscle Na+ channels regulate deactivation gating. Journal of Physiology, 2003, 548, 85-96.	2.9	11
72	Mechanisms of Adaptation in a Predator-Prey Arms Race: TTX-Resistant Sodium Channels. Science, 2002, 297, 1336-1339.	12.6	166

#	Article	IF	Citations
73	Outer and Central Charged Residues in DIVS4 of Skeletal Muscle Sodium Channels Have Differing Roles in Deactivation. Biophysical Journal, 2002, 82, 1293-1307.	0.5	15
74	A Single Residue Differentiates between Human Cardiac and Skeletal Muscle Na+ Channel Slow Inactivation. Biophysical Journal, 2001, 80, 2221-2230.	0.5	53
75	A novel mechanism associated with idiopathic ventricular fibrillation (IVF) mutations R1232W and T1620M in human cardiac sodium channels. Pflugers Archiv European Journal of Physiology, 2001, 442, 204-211.	2.8	16
76	Slow Inactivation in Voltage-Gated Sodium Channels: Molecular Substrates and Contributions to Channelopathies. Cell Biochemistry and Biophysics, 2001, 35, 171-190.	1.8	152
77	The delay in recovery from fast inactivation in skeletal muscle sodium channels is deactivation. Cellular and Molecular Neurobiology, 2000, 20, 521-527.	3.3	11
78	Differential effects of homologous S4 mutations in human skeletal muscle sodium channels on deactivation gating from open and inactivated states. Journal of Physiology, 1999, 516, 687-698.	2.9	33
79	Voltage Sensors in Domains III and IV, but Not I and II, Are Immobilized by Na+ Channel Fast Inactivation. Neuron, 1999, 22, 73-87.	8.1	264
80	Functional consequences of a domain 1/S6 segment sodium channel mutation associated with painful congenital myotonia. FEBS Letters, 1999, 448, 231-234.	2.8	18
81	Structural Determinants of Slow Inactivation in Human Cardiac and Skeletal Muscle Sodium Channels. Biophysical Journal, 1999, 77, 1384-1393.	0.5	74
82	A defect in skeletal muscle sodium channel deactivation exacerbates hyperexcitability in human paramyotonia congenita. Journal of Physiology, 1998, 506, 627-638.	2.9	61
83	Effects of clamp rise-time on rat brain IIA sodium channels in Xenopus oocytes. Journal of Neuroscience Methods, 1997, 73, 113-122.	2.5	5