Flavien Charpentier

List of Publications by Year
in descending order

90 papers	4,813 citations	101543 36 h-index	95266 68 g-index
90 all docs	90 docs citations	90 times ranked	5502 citing authors

#	Article	IF	Citations
1	Functional beta3-adrenoceptor in the human heart.. Journal of Clinical Investigation, 1996, 98, 556-562.	8.2	404
2	Electrophysiologic characteristics of cells spanning the left ventricular wall of human heart: Evidence for presence of M cells. Journal of the American College of Cardiology, 1995, 26, 185-192.	2.8	381
3	Bradycardia and Slowing of the Atrioventricular Conduction in Mice Lacking Ca V 3.1/Î± 1G T-Type Calcium Channels. Circulation Research, 2006, 98, 1422-1430.	4.5	275
4	Conditional Mineralocorticoid Receptor Expression in the Heart Leads to Life-Threatening Arrhythmias. Circulation, 2005, 111, 3025-3033.	1.6	240
5	Human Atrial Ion Channel and Transporter Subunit Gene-Expression Remodeling Associated With Valvular Heart Disease and Atrial Fibrillation. Circulation, 2005, 112, 471-481.	1.6	215
6	Phosphatidylinositol-4,5-bisphosphate, PIP2, controls KCNQ1/KCNE1 voltage-gated potassium channels: a functional homology between voltage-gated and inward rectifier K+ channels. EMBO Journal, 2003, 22, 5412-5421.	7.8	203
7	Mouse Model of SCN5A -Linked Hereditary Lenel€greâ€™s Disease. Circulation, 2005, 111, 1738-1746.	1.6	199
8	Multifocal Ectopic Purkinje-Related Premature Contractions. Journal of the American College of Cardiology, 2012, 60, 144-156.	2.8	156
9	Impaired Impulse Propagation in Scn5a -Knockout Mice. Circulation, 2005, 112, 1927-1935.	1.6	151
10	The Sodiumâ€“Glucose Cotransporter 2 Inhibitor Dapagliflozin Prevents Cardiomyopathy in a Diabetic Lipodystrophic Mouse Model. Diabetes, 2017, 66, 1030-1040.	0.6	119
11	Autologous myoblast transplantation after myocardial infarction increases the inducibility of ventricular arrhythmias. Cardiovascular Research, 2006, 69, 348-358.	3.8	116
12	Sinus node dysfunction following targeted disruption of the murine cardiac sodium channel geneScn5a. Journal of Physiology, 2005, 567, 387-400.	2.9	107
13	Phosphodiesterase 4B in the cardiac L-type Ca2+ channel complex regulates Ca2+ current and protects against ventricular arrhythmias in mice. Journal of Clinical Investigation, 2011, 121, 2651-2661.	8.2	105
14	Amiodarone reduces transmural heterogeneity of repolarization in the human heart. Journal of the American College of Cardiology, 1998, 32, 1063-1067.	2.8	97
15	A Dominant Negative Isoform of the Long QT Syndrome 1 Gene Product. Journal of Biological Chemistry, 1998, 273, 6837-6843.	3.4	82
16	Microarray Analysis Reveals Complex Remodeling of Cardiac Ion Channel Expression With Altered Thyroid Status. Circulation Research, 2003, 92, 234-242.	4.5	82
17	Delayed rectifier K+ currents and cardiac repolarization. Journal of Molecular and Cellular Cardiology, 2010, 48, 37-44.	1.9	71
18	Variable Nav1.5 Protein Expression from the Wild-Type Allele Correlates with the Penetrance of Cardiac Conduction Disease in the Scn5a+/â^' Mouse Model. PLoS ONE, 2010, 5, e9298.	2.5	67

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19	Differential expression of KvLQT1 isoforms across the human ventricular wall. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H1908-H1915.	3.2	62
20	Transgenic mice overexpressing human KvLQT1 dominant-negative isoform Part I: Phenotypic characterisation. Cardiovascular Research, 2001, 50, 314-327.	3.8	62
21	Toward Personalized Medicine: Using Cardiomyocytes Differentiated From Urineâ€Derived Pluripotent Stem Cells to Recapitulate Electrophysiological Characteristics of Type 2 Long QT Syndrome. Journal of the American Heart Association, 2015, 4, e002159.	3.7	61
22	Conditional FKBP12.6 Overexpression in Mouse Cardiac Myocytes Prevents Triggered Ventricular Tachycardia Through Specific Alterations in Excitation- Contraction Coupling. Circulation, 2008, 117, 1778-1786.	1.6	57
23	KvLQT1 Potassium Channel but Not IsK Is the Molecular Target fortrans-6-Cyano-4-(N-ethylsulfonyl-N-methylamino)-3-hydroxy-2,2-dimethyl-chromane. Molecular Pharmacology, 1997, 52, 1131-1136.	2.3	51
24	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.	3.4	49
25	RRAD mutation causes electrical and cytoskeletal defects in cardiomyocytes derived from a familial case of Brugada syndrome. European Heart Journal, 2019, 40, 3081-3094.	2.2	48
26	Mass Spectrometry-Based Identification of Native Cardiac Nav1.5 Channel Î± Subunit Phosphorylation Sites. Journal of Proteome Research, 2012, 11, 5994-6007.	3.7	47
27	G protein-gated I _{KACh} channels as therapeutic targets for treatment of sick sinus syndrome and heart block. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E932-41.	7.1	47
28	Cardiac Overexpression of PDE4B Blunts Î²-Adrenergic Response and Maladaptive Remodeling in Heart Failure. Circulation, 2020, 142, 161-174.	1.6	47
29	Effects of chronic treatment by amiodarone on transmural heterogeneity of canine ventricular repolarization in vivo: interactions with acute sotalol. Cardiovascular Research, 1999, 44, 303-314.	3.8	46
30	Osteopontin Expression in Cardiomyocytes Induces Dilated Cardiomyopathy. Circulation: Heart Failure, 2010, 3, 431-439.	3.9	46
31	AdultKCNE1-Knockout Mice Exhibit a Mild Cardiac Cellular Phenotype. Biochemical and Biophysical Research Communications, 1998, 251, 806-810.	2.1	45
32	Long-Term Amiodarone Administration Remodels Expression of Ion Channel Transcripts in the Mouse Heart. Circulation, 2004, 110, 3028-3035.	1.6	41
33	Physiological and Pathophysiological Insights of Nav1.4 and Nav1.5 Comparison. Frontiers in Pharmacology, 2015, 6, 314.	3.5	40
34	An autoantibody profile detects Brugada syndrome and identifies abnormally expressed myocardial proteins. European Heart Journal, 2020, 41, 2878-2890.	2.2	40
35	Remodeling of excitation-contraction coupling in transgenic mice expressing ATP-insensitive sarcolemmal KATP channels. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H1361-H1369.	3.2	39
36	Chronic heart rate reduction remodels ion channel transcripts in the mouse sinoatrial node but not in the ventricle. Physiological Genomics, 2006, 24, 4-12.	2.3	38

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37	Mouse models of SCN5A-related cardiac arrhythmias. Progress in Biophysics and Molecular Biology, 2008, 98, 230-237.	2.9	38
38	Cardiac cell therapy: overexpression of connexin43 in skeletal myoblasts and prevention of ventricular arrhythmias. Journal of Cellular and Molecular Medicine, 2009, 13, 3703-3712.	3.6	36
39	Mouse Models of SCN5A-Related Cardiac Arrhythmias. Frontiers in Physiology, 2012, 3, 210.	2.8	36
40	Abnormal cardiac repolarization and impulse initiation in German shepherd dogs with inherited ventricular arrhythmias and sudden death. Cardiovascular Research, 1999, 42, 65-79.	3.8	34
41	Trafficking-deficient long QT syndrome mutation KCNQ1-T587M confers severe clinical phenotype by impairment of KCNH2 membrane localization: Evidence for clinically significant IKr-IKs Î±-subunit interaction. Heart Rhythm, 2009, 6, 1792-1801.	0.7	34
42	C-terminal phosphorylation of NaV1.5 impairs FGF13-dependent regulation of channel inactivation. Journal of Biological Chemistry, 2017, 292, 17431-17448.	3.4	33
43	Phosphatidylinositol-4,5-Bisphosphate (PIP2) Stabilizes the Open Pore Conformation of the Kv11.1 (hERG) Channel. Biophysical Journal, 2010, 99, 1110-1118.	0.5	31
44	Transgenic mice overexpressing human KvLQT1 dominant-negative isoform Part II: Pharmacological profile. Cardiovascular Research, 2001, 50, 328-334.	3.8	30
45	KV4.3 Expression Modulates NaV1.5 Sodium Current. Frontiers in Physiology, 2018, 9, 178.	2.8	30
46	Normal interventricular differences in tissue architecture underlie right ventricular susceptibility to conduction abnormalities in a mouse model of Brugada syndrome. Cardiovascular Research, 2018, 114, 724-736.	3.8	28
47	Transforming growth factor Î² receptor inhibition prevents ventricular fibrosis in a mouse model of progressive cardiac conduction disease. Cardiovascular Research, 2017, 113, 464-474.	3.8	26
48	Cardiac channelopathies: from men to mice. Annals of Medicine, 2004, 36, 28-34.	3.8	25
49	Biological Pacemaker Engineered by Nonviral Gene Transfer in a Mouse Model of Complete Atrioventricular Block. Molecular Therapy, 2008, 16, 1937-1943.	8.2	24
50	Rabbit, a relevant model for the study of cardiac Î²₃â€adrenoceptors. Experimental Physiology, 2009, 94, 400-411.	2.0	24
51	HIV-Tat induces a decrease in I Kr and I Ks via reduction in phosphatidylinositol-(4,5)-bisphosphate availability. Journal of Molecular and Cellular Cardiology, 2016, 99, 1-13.	1.9	24
52	Functional genomics of cardiac ion channel genes. Cardiovascular Research, 2005, 67, 438-447.	3.8	23
53	Targeting the Microtubule EB1-CLASP2 Complex Modulates Na _V 1.5 at Intercalated Discs. Circulation Research, 2021, 129, 349-365.	4.5	23
54	Early after/depolarizations and triggered activity: mechanisms and autonomic regulation. Fundamental and Clinical Pharmacology, 1993, 7, 39-49.	1.9	22

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55	Electropharmacological characterization of cardiac repolarization in German shepherd dogs with an inherited syndrome of sudden death: abnormal response to potassium channel blockers. Journal of the American College of Cardiology, 2000, 36, 939-947.	2.8	21
56	Role of T-type calcium channel subunits in post-myocardial infarction remodelling probed with genetically engineered mice. Cardiovascular Research, 2011, 91, 420-428.	3.8	21
57	Cardiac FKBP12.6 overexpression protects against triggered ventricular tachycardia in pressure overloaded mouse hearts. Basic Research in Cardiology, 2012, 107, 246.	5.9	21
58	Infanticide vs. inherited cardiac arrhythmias. Europace, 2021, 23, 441-450.	1.7	21
59	Dysfunction of the Voltageâ€Gated K ⁺ Channel Î²2 Subunit in a Familial Case of Brugada Syndrome. Journal of the American Heart Association, 2016, 5, .	3.7	20
60	Expression of human ERG K channels in the mouse heart exerts anti-arrhythmic activity. Cardiovascular Research, 2005, 65, 128-137.	3.8	19
61	T-Type Calcium Current Contributes to Escape Automaticity and Governs the Occurrence of Lethal Arrhythmias After Atrioventricular Block in Mice. Circulation: Arrhythmia and Electrophysiology, 2013, 6, 799-808.	4.8	19
62	KCNE1-KCNQ1 osmoregulation by interaction of phosphatidylinositol-4,5-bisphosphate with Mg²⁺and polyamines. Journal of Physiology, 2010, 588, 3471-3483.	2.9	18
63	Early ion-channel remodeling and arrhythmias precede hypertrophy in a mouse model of complete atrioventricular block. Journal of Molecular and Cellular Cardiology, 2011, 51, 713-721.	1.9	17
64	Human model of IRX5 mutations reveals key role for this transcription factor in ventricular conduction. Cardiovascular Research, 2021, 117, 2092-2107.	3.8	17
65	Triggered Activity As a Possible Mechanism for Arrhythmias in Ventricular Hypertrophy. PACE - Pacing and Clinical Electrophysiology, 1991, 14, 1735-1741.	1.2	16
66	Mental stress test: a rapid, simple, and efficient test to unmask long QT syndrome. Europace, 2018, 20, 2014-2020.	1.7	15
67	KCNQ1 Antibodies for Immunotherapy of Long QT Syndrome Type 2. Journal of the American College of Cardiology, 2020, 75, 2140-2152.	2.8	14
68	Inhibition of G protein-gated K+ channels by tertiapin-Q rescues sinus node dysfunction and atrioventricular conduction in mouse models of primary bradycardia. Scientific Reports, 2020, 10, 9835.	3.3	13
69	Î±1-Adrenergic Stimulation Induces Early Afterdepolarizations in Ferret Purkinje Fibers. Journal of Cardiovascular Pharmacology, 1996, 27, 320-326.	1.9	13
70	Endomyocardial Biopsies: A New Approach for Studying the Electrical and Mechanical Properties of Human Ventricular Myocardium. Journal of Molecular and Cellular Cardiology, 1994, 26, 1267-1271.	1.9	12
71	Identifying potential functional impact of mutations and polymorphisms: linking heart failure, increased risk of arrhythmias and sudden cardiac death. Frontiers in Physiology, 2013, 4, 254.	2.8	12
72	Gap-134, a Connexin43 activator, prevents age-related development of ventricular fibrosis in Scn5aâˆ’ mice. Pharmacological Research, 2020, 159, 104922.	7.1	8

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73	Modelling sudden cardiac death risks factors in patients with coronavirus disease of 2019: the hydroxychloroquine and azithromycin case. Europace, 2021, 23, 1124-1136.	1.7	8
74	Transfer of Rolf S3-S4 Linker to hERG Eliminates Activation Gating but Spares Inactivation. Biophysical Journal, 2009, 97, 1323-1334.	0.5	7
75	Familial Catecholamine-Induced QT Prolongation in Unexplained Sudden Cardiac Death. Journal of the American College of Cardiology, 2017, 69, 1642-1643.	2.8	7
76	Understanding the cardiac role of K2P channels: A new TASK for electrophysiologists. Cardiovascular Research, 2007, 75, 5-6.	3.8	6
77	Progressive Cardiac Conduction Disease. , 2008, , 564-576.		6
78	Arrhythmias precede cardiomyopathy and remodeling of Ca2+ handling proteins in a novel model of long QT syndrome. Journal of Molecular and Cellular Cardiology, 2018, 123, 13-25.	1.9	5
79	Functional Impact of BeKm-1, a High-Affinity hERG Blocker, on Cardiomyocytes Derived from Human-Induced Pluripotent Stem Cells. International Journal of Molecular Sciences, 2020, 21, 7167.	4.1	5
80	A consistent arrhythmogenic trait in Brugada syndrome cellular phenotype. Clinical and Translational Medicine, 2021, 11, e413.	4.0	5
81	Guest Editors' Introduction. Journal of Molecular and Cellular Cardiology, 2010, 48, 1.	1.9	3
82	Human MuStem Cell Grafting into Infarcted Rat Heart Attenuates Adverse Tissue Remodeling and Preserves Cardiac Function. Molecular Therapy - Methods and Clinical Development, 2020, 18, 446-463.	4.1	3
83	Phosphoproteomic Identification of CaMKII- and Heart Failure-Dependent Phosphorylation Sites on the Native Cardiac Nav1.5 Channel Protein. Biophysical Journal, 2014, 106, 37a.	0.5	2
84	Generation of human induced pluripotent stem cell lines from four unrelated healthy control donors carrying European genetic background. Stem Cell Research, 2022, 59, 102647.	0.7	2
85	Cardiac ion channels and channelopathies. Journal of Molecular and Cellular Cardiology, 2006, 40, 983.	1.9	0
86	KCNQ1-R539W Mutation Substitutes Cholesterol for Phosphatidylinositol-4, 5-Bisphosphate in Channel Regulation. Biophysical Journal, 2011, 100, 428a.	0.5	0
87	Abnormalities in Transmural Ventricular Electrophysiology in a Heterozygous SCN5A Knockout Mouse Model Revealed by Two-Photon Microscopy. Biophysical Journal, 2015, 108, 274a.	0.5	0
88	A Molecular Substrate for Long QT in HIV Patients: Tat Protein Reduces IKR in Human Induced Pluripotent Stem Cells-Derived Cardiomyocytes. Biophysical Journal, 2016, 110, 103a.	0.5	0
89	HIV-Tat Induces a Decrease in I Kr and I Ks via Reduction in Phosphatidylinositol-(4,5)-Bisphosphate Availability. Biophysical Journal, 2017, 112, 405a.	0.5	0
90	Progressive Cardiac Conduction Disease. , 2013, , 583-603.		0