Jong-Kook Lee

List of Publications by Year
in descending order

83 papers	2,802 citations	159585 30 h-index	182427 51 g-index
85 all docs	85 docs citations	85 times ranked	4309 citing authors

#	Article	IF	Citations
1	Complement C1q Activates Canonical Wnt Signaling and Promotes Aging-Related Phenotypes. Cell, 2012, 149, 1298-1313.	28.9	278
2	Sema3a maintains normal heart rhythm through sympathetic innervation patterning. Nature Medicine, 2007, 13, 604-612.	30.7	209
3	Sinoatrial Node Dysfunction and Early Unexpected Death of Mice With a Defect of <i>klotho</i> Gene Expression. Circulation, 2004, 109, 1776-1782.	1.6	201
4	Chamberâ€specific differentiation of Nkx2.5â€positive cardiac precursor cells from murine embryonic stem cells. FASEB Journal, 2003, 17, 740-742.	0.5	158
5	Midkine Plays a Protective Role Against Cardiac Ischemia/Reperfusion Injury Through a Reduction of Apoptotic Reaction. Circulation, 2006, 114, 1713-1720.	1.6	91
6	Cav3.2 subunit underlies the functional T-type Ca2+ channel in murine hearts during the embryonic period. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H2257-H2263.	3.2	89
7	Construction of multi-layered cardiomyocyte sheets using magnetite nanoparticles and magnetic force. Biotechnology and Bioengineering, 2007, 96, 803-809.	3.3	87
8	DNA single-strand break-induced DNA damage response causes heart failure. Nature Communications, 2017, 8, 15104.	12.8	85
9	Ionic Mechanisms of Acquired QT Prolongation and Torsades de Pointes in Rabbits With Chronic Complete Atrioventricular Block. Circulation, 2002, 106, 2012-2018.	1.6	81
10	Pirfenidone exhibits cardioprotective effects by regulating myocardial fibrosis and vascular permeability in pressure-overloaded hearts. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H512-H522.	3.2	81
11	Contribution of hydrophobic and electrostatic interactions to the membrane integration of the Shaker K+ channel voltage sensor domain. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8263-8268.	7.1	64
12	Pivotal Role of Non-cardiomyocytes in Electromechanical and Therapeutic Potential of Induced Pluripotent Stem Cell-Derived Engineered Cardiac Tissue. Tissue Engineering - Part A, 2018, 24, 287-300.	3.1	63
13	Overexpression of calpastatin by gene transfer prevents troponin I degradation and ameliorates contractile dysfunction in rat hearts subjected to ischemia/reperfusion. Journal of Molecular and Cellular Cardiology, 2003, 35, 1277-1284.	1.9	62
14	Device for co-culture of sympathetic neurons and cardiomyocytes using microfabrication. Lab on A Chip, 2011, 11, 2268.	6.0	57
15	Complement C1q-induced activation of Î²-catenin signalling causes hypertensive arterial remodelling. Nature Communications, 2015, 6, 6241.	12.8	51
16	Pathophysiological Significance of T-type Ca2+ Channels: Expression of T-type Ca2+ Channels in Fetal and Diseased Heart. Journal of Pharmacological Sciences, 2005, 99, 205-210.	2.5	49
17	Novel Gating Mechanism of Polyamine Block in the Strong Inward Rectifier K Channel Kir2.1. Journal of General Physiology, 1999, 113, 555-564.	1.9	48
18	Excitation propagation in three-dimensional engineered hearts using decellularized extracellular matrix. Biomaterials, 2014, 35, 7839-7850.	11.4	46

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19	T-type Ca2+ channel blockers prevent cardiac cell hypertrophy through an inhibition of calcineurinâ€“NFAT3 activation as well as L-type Ca2+ channel blockers. Life Sciences, 2008, 82, 554-560.	4.3	43
20	Rate-dependent shortening of action potential duration increases ventricular vulnerability in failing rabbit heart. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H565-H573.	3.2	42
21	Angiotensin II receptor blockade promotes repair of skeletal muscle through down-regulation of aging-promoting C1q expression. Scientific Reports, 2015, 5, 14453.	3.3	42
22	Calpain-dependent Cleavage of N-cadherin Is Involved in the Progression of Post-myocardial Infarction Remodeling. Journal of Biological Chemistry, 2014, 289, 19408-19419.	3.4	40
23	Quantification of sympathetic hyperinnervation and denervation after myocardial infarction by three-dimensional assessment of the cardiac sympathetic network in cleared transparent murine hearts. PLoS ONE, 2017, 12, e0182072.	2.5	40
24	Notch activation mediates angiotensin II-induced vascular remodeling by promoting the proliferation and migration of vascular smooth muscle cells. Hypertension Research, 2013, 36, 859-865.	2.7	37
25	Wnt/Î²-Catenin Signaling Contributes to Skeletal Myopathy in Heart Failure via Direct Interaction With Forkhead Box O. Circulation: Heart Failure, 2015, 8, 799-808.	3.9	34
26	Downregulation of voltage-gated K+ channels in rat heart with right ventricular hypertrophy. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H1725-H1731.	3.2	33
27	The Cellular Prion Protein Identifies Bipotential Cardiomyogenic Progenitors. Circulation Research, 2010, 106, 111-119.	4.5	33
28	Aldosterone modulates If current through gene expression in cultured neonatal rat ventricular myocytes. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H2710-H2718.	3.2	32
29	An EP4 Receptor Agonist Inhibits Cardiac Fibrosis Through Activation of PKA Signaling in Hypertrophied Heart. International Heart Journal, 2017, 58, 107-114.	1.0	32
30	Mechanosensitivity of GIRK Channels Is Mediated by Protein Kinase C-dependent Channel-Phosphatidylinositol 4,5-Bisphosphate Interaction. Journal of Biological Chemistry, 2004, 279, 7037-7047.	3.4	31
31	Rapid electrical stimulation of contraction modulates gap junction protein in neonatal rat cultured cardiomyocytes. Journal of the American College of Cardiology, 2004, 44, 914-922.	2.8	29
32	Sympathetic neurons modulate the beat rate of pluripotent cell-derived cardiomyocytes in vitro. Integrative Biology (United Kingdom), 2012, 4, 1532.	1.3	28
33	Single cell trapping and cellâ€“cell interaction monitoring of cardiomyocytes in a designed microfluidic chip. Sensors and Actuators B: Chemical, 2015, 207, 43-50.	7.8	27
34	Activation of endothelial Î²-catenin signaling induces heart failure. Scientific Reports, 2016, 6, 25009.	3.3	27
35	Subtype Switching of L-Type Ca 2+ Channel From Cav1.3 to Cav1.2 in Embryonic Murine Ventricle. Circulation Journal, 2005, 69, 1405-1411.	1.6	26
36	Generation of Induced Pluripotent Stem Cells From Patients With Duchenne Muscular Dystrophy and Their Induction to Cardiomyocytes. International Heart Journal, 2016, 57, 112-117.	1.0	26

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37	Vesnarinone Prolongs Action Potential Duration Without Reverse Frequency Dependence in Rabbit Ventricular Muscle by Blocking the Delayed Rectifier K⁺Current. Circulation, 1997, 96, 3696-3703.	1.6	26
38	Residues and Mechanisms for Slow Activation and Ba2+Block of the Cardiac Muscarinic K+ Channel, Kir3.1/Kir3.4. Journal of Biological Chemistry, 2000, 275, 35831-35839.	3.4	25
39	Axon Guidance of Sympathetic Neurons to Cardiomyocytes by Glial Cell Line-Derived Neurotrophic Factor (GDNF). PLoS ONE, 2013, 8, e65202.	2.5	25
40	Monocyte-derived extracellular Nampt-dependent biosynthesis of NAD+ protects the heart against pressure overload. Scientific Reports, 2015, 5, 15857.	3.3	25
41	Combined Effects of Nifekalant and Lidocaine on the Spiral-Type Re-Entry in a Perfused 2-Dimensional Layer of Rabbit Ventricular Myocardium. Circulation Journal, 2005, 69, 576-584.	1.6	23
42	Regeneration of the Cardiac Conduction System by Adipose Tissue-Derived Stem Cells. Circulation Journal, 2015, 79, 2703-2712.	1.6	23
43	Generation of Fabry cardiomyopathy model for drug screening using induced pluripotent stem cell-derived cardiomyocytes from a female Fabry patient. Journal of Molecular and Cellular Cardiology, 2018, 121, 256-265.	1.9	21
44	Activation of DNA Damage Response and Cellular Senescence in Cardiac Fibroblasts Limit Cardiac Fibrosis After Myocardial Infarction. International Heart Journal, 2019, 60, 944-957.	1.0	21
45	Decreased Vagal Control Over Heart Rate in Rats With Right-Sided Congestive Heart Failure-Downregulation of Neuronal Nitric Oxide Synthase-. Circulation Journal, 2005, 69, 493-499.	1.6	20
46	Paracrine factors of vascular endothelial cells facilitate cardiomyocyte differentiation of mouse embryonic stem cells. Biochemical and Biophysical Research Communications, 2008, 377, 413-418.	2.1	20
47	Effects of Aldosterone on Cx43 Gap Junction Expression in Neonatal Rat Cultured Cardiomyocytes. Circulation Journal, 2009, 73, 1504-1512.	1.6	17
48	Rapid electrical stimulation causes alterations in cardiac intercellular junction proteins of cardiomyocytes. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H1324-H1333.	3.2	17
49	Geometrical Patterning and Constituent Cell Heterogeneity Facilitate Electrical Conduction Disturbances in a Human Induced Pluripotent Stem Cell-Based Platform: An In vitro Disease Model of Atrial Arrhythmias. Frontiers in Physiology, 2019, 10, 818.	2.8	15
50	N-Glycans: Phenotypic Homology and Structural Differences between Myocardial Cells and Induced Pluripotent Stem Cell-Derived Cardiomyocytes. PLoS ONE, 2014, 9, e111064.	2.5	14
51	Changes of HCN gene expression and If currents in Nkx2.5-positive cardiomyocytes derived from murine embryonic stem cells during differentiation. Biomedical Research, 2008, 29, 195-203.	0.9	13
52	Phenotypic Screening Using Patient-Derived Induced Pluripotent Stem Cells Identified Pyr3 as a Candidate Compound for the Treatment of Infantile Hypertrophic Cardiomyopathy. International Heart Journal, 2018, 59, 1096-1105.	1.0	13
53	High-Throughput Drug Screening System Based on Human Induced Pluripotent Stem Cell-Derived Atrial Myocytes â^¼ A Novel Platform to Detect Cardiac Toxicity for Atrial Arrhythmias. Frontiers in Pharmacology, 2021, 12, 680618.	3.5	10
54	Glial cell line-derived neurotrophic factor (GDNF) enhances sympathetic neurite growth in rat hearts at early developmental stages. Biomedical Research, 2010, 31, 353-361.	0.9	8

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55	Long-term amiodarone treatment causes cardioselective hypothyroid-like alteration in gene expression profile. European Journal of Pharmacology, 2008, 578, 270-278.	3.5	7
56	Decreased YAP activity reduces proliferative ability in human induced pluripotent stem cell of duchenne muscular dystrophy derived cardiomyocytes. Scientific Reports, 2021, 11, 10351.	3.3	7
57	Aberrant accumulation of TMEM43 accompanied by perturbed transmural gene expression in arrhythmogenic cardiomyopathy. FASEB Journal, 2021, 35, e21994.	0.5	7
58	Microfabricated device for co-culture of sympathetic neuron and iPS-derived cardiomyocytes. , 2013, 2013, 3817-20.		5
59	Sympathetic Innervation Induced in Engrafted Engineered Cardiomyocyte Sheets by Glial Cell Line Derived Neurotrophic Factor<i>In Vivo</i>. BioMed Research International, 2013, 2013, 1-8.	1.9	5
60	Human-Induced Pluripotent Stem Cellâ€"Derived Cardiomyocyte Model for <i>TNNT2</i> Î"160E-Induced Cardiomyopathy. Circulation Genomic and Precision Medicine, 2022, 15, .	3.6	5
61	The topogenic function of S4 promotes membrane insertion of the voltage-sensor domain in the KvAP channel. Biochemical Journal, 2016, 473, 4361-4372.	3.7	4
62	Regeneration of Cardiac Conduction System by Adipose Tissue Derived-stem Cells. Journal of Cardiac Failure, 2009, 15, S149.	1.7	3
63	Scaffold-Mediated Developmental Effects on Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes Are Preserved After External Support Removal. Frontiers in Cell and Developmental Biology, 2021, 9, 591754.	3.7	3
64	Homogeneous 2D and 3D alignment of cardiomyocyte in dilated cardiomyopathy revealed by intravital heart imaging. Scientific Reports, 2021, 11, 14698.	3.3	3
65	Autonomic nervous system driven cardiomyocytes in vitro. , 2011, 2011, 1945-8.		2
66	Optical microscopy imaging for the diagnosis of the pharmacological reaction of mouse embryonic stem cell-derived cardiomyocytes (mESC-CMs). Analyst, The, 2015, 140, 6500-6507.	3.5	2
67	In vitro platform of allogeneic stem cell-derived cardiomyocyte transplantation for cardiac conduction defects. Europace, 2018, 20, 1553-1560.	1.7	2
68	Construction of Functional Cardiovascular Tissues Using Magnetic Nanoparticles. , 2013, , 221-228.		2
69	Development of Semi-Separated Co-Culture System for Electrical Stimulation and Extracellular Recording of Sympathetic Neuron and Cardiomyocyte. IEEJ Transactions on Electronics, Information and Systems, 2009, 129, 1225-1230.	0.2	2
70	Development of semi-separated co-culture system of sympathetic neuron and cardiomyocyte. , 2009, 2009, 1832-5.		1
71	A New In Vitro Coâ€Culture Model Using Magnetic Forceâ€Based Nanotechnology. Journal of Cellular Physiology, 2016, 231, 2249-2256.	4.1	1
72	Non-invasive Video Image-based Analysis Method Coupled to Field Potential Recording for Evaluation of the Drug-induced Effect in Cardiac Tissue. Electrochemistry, 2016, 84, 283-289.	1.4	1

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73	Developmental Changes in Spontaneous Beating Rhythm of Cardiac Myocytes in vitro Cultured with Molecular Diffusion Culture Method. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1064-1069.	0.2	1
74	Effects of Aldosterone on the Gap Junction Channel Protein Connexin43 in Neonatal Rat Ventricular Myocytes. Journal of Cardiac Failure, 2006, 12, S165.	1.7	0
75	Gap Junction Remodeling Caused by Aldosterone is Modulated by Ca2+ Channel Activity. Journal of Cardiac Failure, 2007, 13, S34.	1.7	0
76	Small Animal Models for Arrhythmia Studies. , 2010, , 261-279.		0
77	Induction of Sympathetic Innervation to Stem Cell-Derived Cardiomyocytes. Journal of Cardiac Failure, 2010, 16, S139.	1.7	0
78	Development of spatially separated coculture system of the sympathetic neuron and the cardiomyocyte. IEEJ Transactions on Electrical and Electronic Engineering, 2011, 6, 151-156.	1.4	0
79	Developmental changes in spontaneous beating rhythm of cardiac myocytes cultured in vitro by molecular diffusion culture method. Electronics and Communications in Japan, 2011, 94, 35-42.	0.5	0
80	Cardiac ÃŸ -catenin Alterations Play an Important Role in Gap Junction Remodeling of Cardiomyocytes Exposed to Rapid Electrical Stimulation. Journal of Cardiac Failure, 2013, 19, S166.	1.7	0
81	Electrical Properties of Engineered Heart Tissues: Its Implication and Application for Arrhythmias. Journal of Cardiac Failure, 2013, 19, S120.	1.7	0
82	Protocol for Morphological and Functional Phenotype Analysis of hiPS-Derived. Methods in Molecular Biology, 2021, 2320, 91-100.	0.9	0
83	Effects of Electrical Stimulation in Sympathetic Neuron-Cardiomyocyte Co-cultures. IEEJ Transactions on Electronics, Information and Systems, 2010, 130, 1139-1144.	0.2	0