Kenneth R Chien

List of Publications by Year
in descending order

83 papers	14,157 citations	57681 46 h-index	58552 86 g-index
90 all docs	90 docs citations	90 times ranked	13931 citing authors

#	Article	IF	Citations
1	Postnatal isl1+ cardioblasts enter fully differentiated cardiomyocyte lineages. Nature, 2005, 433, 647-653.	13.7	1,229
2	Multipotent Embryonic Isl1+ Progenitor Cells Lead to Cardiac, Smooth Muscle, and Endothelial Cell Diversification. Cell, 2006, 127, 1151-1165.	13.5	944
3	Epicardial progenitors contribute to the cardiomyocyte lineage in the developing heart. Nature, 2008, 454, 109-113.	13.7	905
4	MLP-Deficient Mice Exhibit a Disruption of Cardiac Cytoarchitectural Organization, Dilated Cardiomyopathy, and Heart Failure. Cell, 1997, 88, 393-403.	13.5	790
5	Regulation of cardiac gene expression during myocardial growth and hypertrophy: molecular studies of an adaptive physiologic response. FASEB Journal, 1991, 5, 3037-3064.	0.2	743
6	Modeling the mitochondrial cardiomyopathy of Barth syndrome with induced pluripotent stem cell and heart-on-chip technologies. Nature Medicine, 2014, 20, 616-623.	15.2	733
7	The Cardiac Mechanical Stretch Sensor Machinery Involves a Z Disc Complex that Is Defective in a Subset of Human Dilated Cardiomyopathy. Cell, 2002, 111, 943-955.	13.5	712
8	Thymosin Î²4 induces adult epicardial progenitor mobilization and neovascularization. Nature, 2007, 445, 177-182.	13.7	605
9	Modified mRNA directs the fate of heart progenitor cells and induces vascular regeneration after myocardial infarction. Nature Biotechnology, 2013, 31, 898-907.	9.4	528
10	Human ISL1 heart progenitors generate diverse multipotent cardiovascular cell lineages. Nature, 2009, 460, 113-117.	13.7	515
11	Chronic Phospholambanâ€"Sarcoplasmic Reticulum Calcium ATPase Interaction Is the Critical Calcium Cycling Defect in Dilated Cardiomyopathy. Cell, 1999, 99, 313-322.	13.5	482
12	Absence of pressure overload induced myocardial hypertrophy after conditional inactivation of GÎ±q/GÎ±11 in cardiomyocytes. Nature Medicine, 2001, 7, 1236-1240.	15.2	354
13	Chronic suppression of heart-failure progression by a pseudophosphorylated mutant of phospholamban via in vivo cardiac rAAV gene delivery. Nature Medicine, 2002, 8, 864-871.	15.2	344
14	The Renewal and Differentiation of Isl1+ Cardiovascular Progenitors Are Controlled by a Wnt/Î²-Catenin Pathway. Cell Stem Cell, 2007, 1, 165-179.	5.2	300
15	Cardiogenesis and the Complex Biology of Regenerative Cardiovascular Medicine. Science, 2008, 322, 1494-1497.	6.0	237
16	Towards regenerative therapy for cardiac disease. Lancet, The, 2012, 379, 933-942.	6.3	214
17	Islet1 cardiovascular progenitors: a single source for heart lineages?. Development (Cambridge), 2008, 135, 193-205.	1.2	206
18	Disease Modeling and Phenotypic Drug Screening for Diabetic Cardiomyopathy using Human Induced Pluripotent Stem Cells. Cell Reports, 2014, 9, 810-820.	2.9	206

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19	Generation of Functional Ventricular Heart Muscle from Mouse Ventricular Progenitor Cells. Science, 2009, 326, 426-429.	6.0	202
20	Embryonic Heart Progenitors and Cardiogenesis. Cold Spring Harbor Perspectives in Medicine, 2013, 3, a013847-a013847.	2.9	187
21	Herceptin and the Heart â€" A Molecular Modifier of Cardiac Failure. New England Journal of Medicine, 2006, 354, 789-790.	13.9	185
22	Bioengineering Heart Muscle: A Paradigm for Regenerative Medicine. Annual Review of Biomedical Engineering, 2011, 13, 245-267.	5.7	172
23	Regeneration Next: Toward Heart Stem Cell Therapeutics. Cell Stem Cell, 2009, 5, 364-377.	5.2	166
24	A HCN4+ cardiomyogenic progenitor derived from the first heart field and human pluripotent stem cells. Nature Cell Biology, 2013, 15, 1098-1106.	4.6	166
25	Chronic phospholamban inhibition prevents progressive cardiac dysfunction and pathological remodeling after infarction in rats. Journal of Clinical Investigation, 2004, 113, 727-736.	3.9	141
26	Regenerating the field of cardiovascular cell therapy. Nature Biotechnology, 2019, 37, 232-237.	9.4	140
27	Intradermal delivery of modified mRNA encoding VEGF-A in patients with type 2 diabetes. Nature Communications, 2019, 10, 871.	5.8	138
28	How to make a cardiomyocyte. Development (Cambridge), 2014, 141, 4418-4431.	1.2	126
29	Biocompatible, Purified VEGF-A mRNA Improves Cardiac Function after Intracardiac Injection 1 Week Post-myocardial Infarction in Swine. Molecular Therapy - Methods and Clinical Development, 2018, 9, 330-346.	1.8	116
30	Programming and reprogramming a human heartÂcell. EMBO Journal, 2015, 34, 710-738.	3.5	96
31	A Common <i>MLP</i> (Muscle LIM Protein) Variant Is Associated With Cardiomyopathy. Circulation Research, 2010, 106, 695-704.	2.0	90
32	Cardiotrophin-1 and the role of gp130-dependent signaling pathways in cardiac growth and development. Journal of Molecular Medicine, 1997, 75, 492-501.	1.7	89
33	Driving vascular endothelial cell fate of human multipotent Isl1+ heart progenitors with VEGF modified mRNA. Cell Research, 2013, 23, 1172-1186.	5.7	89
34	Regenerative medicine and human models of human disease. Nature, 2008, 453, 302-305.	13.7	84
35	Manipulation of a VEGF-Notch signaling circuit drives formation of functional vascular endothelial progenitors from human pluripotent stem cells. Cell Research, 2014, 24, 820-841.	5.7	81
36	Modified VEGF-A mRNA induces sustained multifaceted microvascular response and accelerates diabetic wound healing. Scientific Reports, 2018, 8, 17509.	1.6	80

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37	Highly efficient derivation of ventricular cardiomyocytes from induced pluripotent stem cells with a distinct epigenetic signature. Cell Research, 2012, 22, 142-154.	5.7	77
38	Cardiomyopathy Associated with Microcirculation Dysfunction in Laminin Î±4 Chain-deficient Mice*. Journal of Biological Chemistry, 2006, 281, 213-220.	1.6	74
39	Insulin-Like Growth Factor 1 Receptor-Dependent Pathway Drives Epicardial Adipose Tissue Formation After Myocardial Injury. Circulation, 2017, 135, 59-72.	1.6	74
40	Population and Single-Cell Analysis of Human Cardiogenesis Reveals Unique LGR5 Ventricular Progenitors in Embryonic Outflow Tract. Developmental Cell, 2019, 48, 475-490.e7.	3.1	71
41	Pregenerative medicine: developmental paradigms in the biology of cardiovascular regeneration. Journal of Clinical Investigation, 2010, 120, 20-28.	3.9	68
42	Thymosin beta-4 Is Essential for Coronary Vessel Development and Promotes Neovascularization via Adult Epicardium. Annals of the New York Academy of Sciences, 2007, 1112, 171-188.	1.8	64
43	Stem Cell Models of Cardiac Development and Disease. Annual Review of Cell and Developmental Biology, 2010, 26, 667-687.	4.0	63
44	Amnion signals are essential for mesoderm formation in primates. Nature Communications, 2021, 12, 5126.	5.8	59
45	Lost and found: cardiac stem cell therapy revisited. Journal of Clinical Investigation, 2006, 116, 1838-1840.	3.9	53
46	The Muscle Ankyrin Repeat Proteins CARP, Ankrd2, and DARP Are Not Essential for Normal Cardiac Development and Function at Basal Conditions and in Response to Pressure Overload. PLoS ONE, 2014, 9, e93638.	1.1	49
47	Calcium and heart failure: the cycle game. Nature Medicine, 2003, 9, 508-509.	15.2	47
48	Synthetic Chemically Modified mRNA (modRNA): Toward a New Technology Platform for Cardiovascular Biology and Medicine. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a014035-a014035.	2.9	45
49	BMP-2 and VEGF-A modRNAs in collagen scaffold synergistically drive bone repair through osteogenic and angiogenic pathways. Communications Biology, 2021, 4, 82.	2.0	43
50	Human ISL1+ Ventricular Progenitors Self-Assemble into an InÂVivo Functional Heart Patch and Preserve Cardiac Function Post Infarction. Molecular Therapy, 2018, 26, 1644-1659.	3.7	38
51	Cardiac progenitors and paracrine mediators in cardiogenesis and heart regeneration. Seminars in Cell and Developmental Biology, 2020, 100, 29-51.	2.3	38
52	To Cre or Not To Cre. Circulation Research, 2001, 88, 546-549.	2.0	35
53	N-cadherin prevents the premature differentiation of anterior heart field progenitors in the pharyngeal mesodermal microenvironment. Cell Research, 2014, 24, 1420-1432.	5.7	35
54	Reversal of Calcium Cycling Defects in Advanced Heart Failure. Journal of the American College of Cardiology, 2006, 48, A15-A23.	1.2	33

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55	Cell-mediated delivery of VEGF modified mRNA enhances blood vessel regeneration and ameliorates murine critical limb ischemia. Journal of Controlled Release, 2019, 310, 103-114.	4.8	33
56	VEGFA mRNA for regenerative treatment of heart failure. Nature Reviews Drug Discovery, 2022, 21, 79-80.	21.5	31
57	Effects of deletion of muscle LIM protein on myocyte function. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H2665-H2673.	1.5	30
58	Genotype, phenotype: upstairs, downstairs in the family of cardiomyopathies. Journal of Clinical Investigation, 2003, 111, 175-178.	3.9	29
59	Reply to â€˜Re-evaluating sarcoplasmic reticulum function in heart failureâ€™. Nature Medicine, 2000, 6, 942-943.	15.2	27
60	Cardiovascular regenerative therapeutics via synthetic paracrine factor modified mRNA. Stem Cell Research, 2014, 13, 693-704.	0.3	26
61	Tolerance induction to human stem cell transplants with extension to their differentiated progeny. Nature Communications, 2014, 5, 5629.	5.8	26
62	Phospholamban antisense oligonucleotides improve cardiac function in murine cardiomyopathy. Nature Communications, 2021, 12, 5180.	5.8	24
63	Inflammatory pathways and cardiac repair: the affliction of infarction. Nature Medicine, 1999, 5, 1122-1123.	15.2	23
64	Developmental expression of the murine spliceosome-associated protein mSAP49. Developmental Dynamics, 1997, 208, 482-490.	0.8	21
65	Endothelin-1 supports clonal derivation and expansion of cardiovascular progenitors derived from human embryonic stem cells. Nature Communications, 2016, 7, 10774.	5.8	21
66	Migratory and anti-fibrotic programmes define the regenerative potential of human cardiac progenitors. Nature Cell Biology, 2022, 24, 659-671.	4.6	21
67	Trajectory mapping of human embryonic stem cell cardiogenesis reveals lineage branch points and an ISL1 progenitor-derived cardiac fibroblast lineage. Stem Cells, 2020, 38, 1267-1278.	1.4	15
68	Genome-wide CRISPR screen identifies ZIC2 as an essential gene that controls the cell fate of early mesodermal precursors to human heart progenitors. Stem Cells, 2020, 38, 741-755.	1.4	15
69	Heart Regeneration 4.0: Matrix Medicine. Developmental Cell, 2017, 42, 7-8.	3.1	12
70	Epicardium-derived cells organize through tight junctions to replenish cardiac muscle in salamanders. Nature Cell Biology, 2022, 24, 645-658.	4.6	12
71	SMAD4 Is Essential for Human Cardiac Mesodermal Precursor Cell Formation. Stem Cells, 2019, 37, 216-225.	1.4	11
72	Sequencing of a Chinese tetralogy of Fallot cohort reveals clustering mutations in myogenic heart progenitors. JCI Insight, 2022, 7, .	2.3	9

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73	Toward Molecular Strategies for Heart Disease. Japanese Circulation Journal, 1997, 61, 91-118.	1.0	8
74	Blocking phospholamban with VHH intrabodies enhances contractility and relaxation in heart failure. Nature Communications, 2022, 13, .	5.8	7
75	Isolation of human ESC-derived cardiac derivatives and embryonic heart cells for population and single-cell RNA-seq analysis. STAR Protocols, 2021, 2, 100339.	0.5	6
76	The new Silk Road. Nature, 2004, 428, 208-209.	13.7	4
77	Next-Generation Models of Human Cardiogenesis via Genome Editing. Cold Spring Harbor Perspectives in Medicine, 2014, 4, a013920-a013920.	2.9	4
78	PHF7 directs cardiac reprogramming. Nature Cell Biology, 2021, 23, 440-442.	4.6	2
79	Heartbroken embryos heal. Nature, 2013, 498, 439-440.	13.7	1
80	Lncâ€™ed in to Cardiogenesis. Cell Stem Cell, 2018, 22, 787-789.	5.2	1
81	An mRNA assay system demonstrates proteasomal-specific degradation contributes to cardiomyopathic phospholamban null mutation. Molecular Medicine, 2021, 27, 102.	1.9	1
82	In search of the next super models. EMBO Molecular Medicine, 2019, 11, e11502.	3.3	1
83	RXRÎ± Null Haematopoietic Cells Fail To Reconstitute Haematopoiesis in Lethally Irradiated Recipient Mice.. Blood, 2004, 104, 2669-2669.	0.6	0