Sean M Wu

List of Publications by Year
in descending order

109 papers	10,698 citations	57681 46 h-index	43601 95 g-index
116 all docs	116 docs citations	116 times ranked	17896 citing authors

#	Article	IF	Citations
1	Single-cell transcriptomics of 20 mouse organs creates a Tabula Muris. Nature, 2018, 562, 367-372.	13.7	2,061
2	Epicardial progenitors contribute to the cardiomyocyte lineage in the developing heart. Nature, 2008, 454, 109-113.	13.7	905
3	A single-cell transcriptomic atlas characterizes ageing tissues in the mouse. Nature, 2020, 583, 590-595.	13.7	683
4	Developmental Origin of a Bipotential Myocardial and Smooth Muscle Cell Precursor in the Mammalian Heart. Cell, 2006, 127, 1137-1150.	13.5	504
5	Harnessing the potential of induced pluripotent stem cells for regenerative medicine. Nature Cell Biology, 2011, 13, 497-505.	4.6	464
6	Ageing hallmarks exhibit organ-specific temporal signatures. Nature, 2020, 583, 596-602.	13.7	317
7	High-throughput screening of tyrosine kinase inhibitor cardiotoxicity with human induced pluripotent stem cells. Science Translational Medicine, 2017, 9, .	5.8	297
8	Inefficient Reprogramming of Fibroblasts into Cardiomyocytes Using Gata4, Mef2c, and Tbx5. Circulation Research, 2012, 111, 50-55.	2.0	227
9	Transcriptomic Profiling Maps Anatomically Patterned Subpopulations among Single Embryonic Cardiac Cells. Developmental Cell, 2016, 39, 491-507.	3.1	218
10	Generation of Functional Ventricular Heart Muscle from Mouse Ventricular Progenitor Cells. Science, 2009, 326, 426-429.	6.0	202
11	Î±2-Macroglobulin from Rheumatoid Arthritis Synovial Fluid: Functional Analysis Defines a Role for Oxidation in Inflammation. Archives of Biochemistry and Biophysics, 2001, 391, 119-126.	1.4	193
12	Single-cell analysis of early progenitor cells that build coronary arteries. Nature, 2018, 559, 356-362.	13.7	190
13	Origins and Fates of Cardiovascular Progenitor Cells. Cell, 2008, 132, 537-543.	13.5	172
14	Molecular Regulation of Cardiomyocyte Differentiation. Circulation Research, 2015, 116, 341-353.	2.0	170
15	Single-Cell RNA Sequencing Unveils Unique Transcriptomic Signatures of Organ-Specific Endothelial Cells. Circulation, 2020, 142, 1848-1862.	1.6	157
16	iPSC-derived cardiomyocytes reveal abnormal TGF-Î² signalling in left ventricular non-compaction cardiomyopathy. Nature Cell Biology, 2016, 18, 1031-1042.	4.6	148
17	Cardiovascular Complications in Patients with COVID-19: Consequences of Viral Toxicities and Host Immune Response. Current Cardiology Reports, 2020, 22, 32.	1.3	146
18	Distilling complexity to advance cardiac tissue engineering. Science Translational Medicine, 2016, 8, 342ps13.	5.8	138

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19	Human Induced Pluripotent Stem Cellâ€"Derived Cardiomyocytes as an In Vitro Model for Coxsackievirus B3â€"Induced Myocarditis and Antiviral Drug Screening Platform. Circulation Research, 2014, 115, 556-566.	2.0	134
20	Endocardium Minimally Contributes to Coronary Endothelium in the Embryonic Ventricular Free Walls. Circulation Research, 2016, 118, 1880-1893.	2.0	131
21	Transcriptomic Profiling of the Developing Cardiac Conduction System at Single-Cell Resolution. Circulation Research, 2019, 125, 379-397.	2.0	120
22	Cardiac Regeneration. Circulation Research, 2017, 120, 941-959.	2.0	117
23	Early cardiac development: a view from stem cells to embryos. Cardiovascular Research, 2012, 96, 352-362.	1.8	115
24	Wnt Activation and Reduced Cell-Cell Contact Synergistically Induce Massive Expansion of Functional Human iPSC-Derived Cardiomyocytes. Cell Stem Cell, 2020, 27, 50-63.e5.	5.2	112
25	Large-Scale Single-Cell RNA-Seq Reveals Molecular Signatures of Heterogeneous Populations of Human Induced Pluripotent Stem Cell-Derived Endothelial Cells. Circulation Research, 2018, 123, 443-450.	2.0	110
26	Bioacoustic-enabled patterning of human iPSC-derived cardiomyocytes into 3D cardiac tissue. Biomaterials, 2017, 131, 47-57.	5.7	99
27	Inhibition of Apoptosis Overcomes Stage-Related Compatibility Barriers to Chimera Formation in Mouse Embryos. Cell Stem Cell, 2016, 19, 587-592.	5.2	92
28	Intrinsic Endocardial Defects Contribute to Hypoplastic Left Heart Syndrome. Cell Stem Cell, 2020, 27, 574-589.e8.	5.2	89
29	Next-Generation Surrogate Wnts Support Organoid Growth and Deconvolute Frizzled Pleiotropy InÂVivo. Cell Stem Cell, 2020, 27, 840-851.e6.	5.2	84
30	Telocytes in human heart valves. Journal of Cellular and Molecular Medicine, 2014, 18, 759-765.	1.6	78
31	Developmental and Regenerative Biology of Multipotent Cardiovascular Progenitor Cells. Circulation Research, 2011, 108, 353-364.	2.0	77
32	Single Cell Analysis of Endothelial Cells Identified Organ-Specific Molecular Signatures and Heart-Specific Cell Populations and Molecular Features. Frontiers in Cardiovascular Medicine, 2019, 6, 165.	1.1	76
33	Integrative Analysis of PRKAG2 Cardiomyopathy iPS and Microtissue Models Identifies AMPK as a Regulator of Metabolism, Survival, and Fibrosis. Cell Reports, 2016, 17, 3292-3304.	2.9	73
34	Fetal Mammalian Heart Generates a Robust Compensatory Response to Cell Loss. Circulation, 2015, 132, 109-121.	1.6	72
35	Contractile force generation by 3D hiPSC-derived cardiac tissues is enhanced by rapid establishment of cellular interconnection in matrix with muscle-mimicking stiffness. Biomaterials, 2017, 131, 111-120.	5.7	72
36	Meta-Analysis of Stem Cell Therapy in Chronic Ischemic Cardiomyopathy. American Journal of Cardiology, 2013, 112, 217-225.	0.7	71

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37	Single cell expression analysis reveals anatomical and cell cycle-dependent transcriptional shifts during heart development. Development (Cambridge), 2019, 146, .	1.2	71
38	Derivation of Highly Purified Cardiomyocytes from Human Induced Pluripotent Stem Cells Using Small Molecule-modulated Differentiation and Subsequent Glucose Starvation. Journal of Visualized Experiments, 2015, , .	0.2	68
39	Identification of a hybrid myocardial zone in the mammalian heart after birth. Nature Communications, 2017, 8, 87.	5.8	67
40	Big bottlenecks in cardiovascular tissue engineering. Communications Biology, 2018, 1, 199.	2.0	66
41	Essential and Unexpected Role of Yin Yang 1 to Promote Mesodermal Cardiac Differentiation. Circulation Research, 2013, 112, 900-910.	2.0	62
42	Effects of Spaceflight on Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Structure and Function. Stem Cell Reports, 2019, 13, 960-969.	2.3	62
43	Myocarditis Surveillance With High-Sensitivity Troponin I During Cancer Treatment With Immune Checkpoint Inhibitors. JACC: CardioOncology, 2021, 3, 137-139.	1.7	55
44	Epigenetic mechanisms in cardiac development and disease. Acta Biochimica Et Biophysica Sinica, 2012, 44, 92-102.	0.9	54
45	Induced pluripotent stem cell-derived cardiomyocytes for cardiovascular disease modeling and drug screening. Stem Cell Research and Therapy, 2013, 4, 150.	2.4	51
46	Cardiovascular Risks in Patients with COVID-19: Potential Mechanisms and Areas of Uncertainty. Current Cardiology Reports, 2020, 22, 34.	1.3	51
47	Differential regulation of the fibroblast growth factor (FGF) family by Î±2-macroglobulin: evidence for selective modulation of FGF-2â€"induced angiogenesis. Blood, 2001, 97, 3450-3457.	0.6	44
48	Bioengineering cardiac constructs using 3D printing. Journal of 3D Printing in Medicine, 2017, 1, 123-139.	1.0	44
49	The Conformation-dependent Interaction of Î±2-Macroglobulin with Vascular Endothelial Growth Factor. Journal of Biological Chemistry, 2000, 275, 26806-26811.	1.6	42
50	Modelling inherited cardiac disease using human induced pluripotent stem cell-derived cardiomyocytes: progress, pitfalls, and potential. Cardiovascular Research, 2018, 114, 1828-1842.	1.8	40
51	Immune Checkpoint Inhibitor Cardiotoxicity: Understanding Basic Mechanisms and Clinical Characteristics and Finding a Cure. Annual Review of Pharmacology and Toxicology, 2021, 61, 113-134.	4.2	40
52	Mesp1 at the Heart of Mesoderm Lineage Specification. Cell Stem Cell, 2008, 3, 1-2.	5.2	39
53	Insulin-Like Growth Factor Promotes Cardiac Lineage Induction In Vitro by Selective Expansion of Early Mesoderm. Stem Cells, 2014, 32, 1493-1502.	1.4	38
54	Cardiovascular tissue bioprinting: Physical and chemical processes. Applied Physics Reviews, 2018, 5, 041106.	5.5	36

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55	Bioprinting Approaches to Engineering Vascularized 3D Cardiac Tissues. Current Cardiology Reports, 2019, 21, 90.	1.3	35
56	Patient-Specific Induced Pluripotent Stem Cells Implicate Intrinsic Impaired Contractility in Hypoplastic Left Heart Syndrome. Circulation, 2020, 142, 1605-1608.	1.6	33
57	Stage-specific Effects of Bioactive Lipids on Human iPSC Cardiac Differentiation and Cardiomyocyte Proliferation. Scientific Reports, 2018, 8, 6618.	1.6	32
58	Mammalian Heart Regeneration. Circulation Research, 2017, 120, 630-632.	2.0	29
59	Nkx2.5+â€‰Cardiomyoblasts Contribute to Cardiomyogenesis in the Neonatal Heart. Scientific Reports, 2017, 7, 12590.	1.6	29
60	Sequential Defects in Cardiac Lineage Commitment and Maturation Cause Hypoplastic Left Heart Syndrome. Circulation, 2021, 144, 1409-1428.	1.6	29
61	Myocardial Disease and Long-Distance Space Travel: Solving the Radiation Problem. Frontiers in Cardiovascular Medicine, 2021, 8, 631985.	1.1	28
62	The Binding of Receptor-recognized Î±2-Macroglobulin to the Low Density Lipoprotein Receptor-related Protein and the Î±2M Signaling Receptor Is Decoupled by Oxidation. Journal of Biological Chemistry, 1997, 272, 20627-20635.	1.6	27
63	Reassessment of c-Kit in Cardiac Cells. Circulation Research, 2018, 123, 9-11.	2.0	26
64	Low-Density Lipoprotein Receptor-Related Protein/ Î±2-Macroglobulin Receptor on Murine Peritoneal Macrophages Mediates the Binding and Catabolism of Low-Density Lipoprotein. Archives of Biochemistry and Biophysics, 1996, 326, 39-47.	1.4	25
65	Identification of cardiovascular lineage descendants at single-cell resolution. Development (Cambridge), 2015, 142, 846-57.	1.2	25
66	Small molecule regulators of postnatal Nkx2.5 cardiomyoblast proliferation and differentiation. Journal of Cellular and Molecular Medicine, 2012, 16, 961-965.	1.6	24
67	Pharmacological inhibition of TGFÎ² receptor improves Nkx2.5 cardiomyoblast-mediated regeneration. Cardiovascular Research, 2015, 105, 44-54.	1.8	24
68	Massive expansion and cryopreservation of functional human induced pluripotent stem cell-derived cardiomyocytes. STAR Protocols, 2021, 2, 100334.	0.5	24
69	Origin of cardiac progenitor cells in the developing and postnatal heart. Journal of Cellular Physiology, 2010, 225, 321-325.	2.0	23
70	The integrative aspects of cardiac physiology and their implications for cellâ€based therapy. Annals of the New York Academy of Sciences, 2010, 1188, 7-14.	1.8	20
71	At a Crossroad. Circulation Research, 2013, 112, 884-890.	2.0	20
72	Patching Up Broken Hearts: Cardiac Cell Therapy Gets a Bioengineered Boost. Cell Stem Cell, 2014, 15, 671-673.	5.2	19

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73	CRISPR/Cas9-based targeting of fluorescent reporters to human iPSCs to isolate atrial and ventricular-specific cardiomyocytes. Scientific Reports, 2021, 11, 3026.	1.6	18
74	Lift NIH restrictions on chimera research. Science, 2015, 350, 640-640.	6.0	17
75	Overexpression of human BAG3P209L in mice causes restrictive cardiomyopathy. Nature Communications, 2021, 12, 3575.	5.8	17
76	iPS Cell Modeling of Cardiometabolic Diseases. Journal of Cardiovascular Translational Research, 2013, 6, 46-53.	1.1	16
77	Harnessing the Induction of Cardiomyocyte Proliferation for Cardiac Regenerative Medicine. Current Treatment Options in Cardiovascular Medicine, 2015, 17, 404.	0.4	16
78	Cardioprotective Actions of TGFÎ²RI Inhibition Through Stimulating Autocrine/Paracrine of Survivin and Inhibiting Wnt in Cardiac Progenitors. Stem Cells, 2016, 34, 445-455.	1.4	16
79	Partial Reprogramming of Pluripotent Stem Cell-Derived Cardiomyocytes into Neurons. Scientific Reports, 2017, 7, 44840.	1.6	16
80	Untangling the Biology of Genetic Cardiomyopathies with Pluripotent Stem Cell Disease Models. Current Cardiology Reports, 2017, 19, 30.	1.3	16
81	Strategies for the acquisition of transcriptional and epigenetic information in single cells. Journal of Thoracic Disease, 2017, 9, S9-S16.	0.6	16
82	Isolation and Functional Characterization of Pluripotent Stem Cellâ€"Derived Cardiac Progenitor Cells. Current Protocols in Stem Cell Biology, 2010, 14, Unit 1F.10.	3.0	16
83	Levitating Cells to Sort the Fit and the Fat. Advanced Biology, 2020, 4, 1900300.	3.0	15
84	4HNE Impairs Myocardial Bioenergetics in Congenital Heart Disease-Induced Right Ventricular Failure. Circulation, 2020, 142, 1667-1683.	1.6	14
85	Single cell RNA sequencing approaches to cardiac development and congenital heart disease. Seminars in Cell and Developmental Biology, 2021, 118, 129-135.	2.3	14
86	Reprogramming of Mouse, Rat, Pig, and Human Fibroblasts into iPS Cells. Current Protocols in Molecular Biology, 2012, 97, Unit-23.15..	2.9	13
87	YY1 Expression Is Sufficient for the Maintenance of Cardiac Progenitor Cell State. Stem Cells, 2017, 35, 1913-1923.	1.4	13
88	Tissue Engineering of 3D Organotypic Microtissues by Acoustic Assembly. Methods in Molecular Biology, 2017, 1576, 301-312.	0.4	12
89	Reactivation of the Nkx2.5 cardiac enhancer after myocardial infarction does not presage myogenesis. Cardiovascular Research, 2018, 114, 1098-1114.	1.8	12
90	Cardiovascular stem cells in regenerative medicine: ready for prime time?. Drug Discovery Today: Therapeutic Strategies, 2008, 5, 201-207.	0.5	11

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91	Myeloid Zinc Finger 1 (Mzf1) Differentially Modulates Murine Cardiogenesis by Interacting with an Nkx2.5 Cardiac Enhancer. PLoS ONE, 2014, 9, e113775.	1.1	11
92	Simple Lithography-Free Single Cell Micropatterning using Laser-Cut Stencils. Journal of Visualized Experiments, 2020, , .	0.2	10
93	Somatic Cell Reprogramming into Cardiovascular Lineages. Journal of Cardiovascular Pharmacology and Therapeutics, 2014, 19, 340-349.	1.0	8
94	In Vivo Rescue of the Hematopoietic Niche By Pluripotent Stem Cell Complementation of Defective Osteoblast Compartments. Stem Cells, 2017, 35, 2150-2159.	1.4	8
95	Fates Aligned: Origins and Mechanisms of Ventricular Conduction System and Ventricular Wall Development. Pediatric Cardiology, 2018, 39, 1090-1098.	0.6	8
96	Genome Editing Redefines Precision Medicine in the Cardiovascular Field. Stem Cells International, 2018, 2018, 1-11.	1.2	8
97	Promises and pitfalls in cell replacement therapy for heart failure. Drug Discovery Today Disease Mechanisms, 2010, 7, e109-e115.	0.8	7
98	Immune checkpoint inhibitor cardiotoxicity: Breaking barriers in the cardiovascular immune landscape. Journal of Molecular and Cellular Cardiology, 2021, 160, 121-127.	0.9	6
99	Purification of Pluripotent Stem Cell-Derived Cardiomyocytes Using CRISPR/Cas9-Mediated Integration of Fluorescent Reporters. Methods in Molecular Biology, 2021, 2158, 223-240.	0.4	6
100	Integrin Based Isolation Enables Purification of Murine Lineage Committed Cardiomyocytes. PLoS ONE, 2015, 10, e0135880.	1.1	6
101	Single-Cell Delineation of Whoâ€™s on First and Second Heart Fields During Development. Circulation Research, 2019, 125, 411-413.	2.0	4
102	Members Only: Hypoxia-Induced Cell-Cycle Activation in Cardiomyocytes. Cell Metabolism, 2015, 22, 365-366.	7.2	3
103	Molecular Profiling of the Cardiac Conduction System: the Dawn of a New Era. Current Cardiology Reports, 2021, 23, 103.	1.3	3
104	KMT2D-NOTCH Mediates Coronary Abnormalities in Hypoplastic Left Heart Syndrome. Circulation Research, 2022, 131, 280-282.	2.0	3
105	Small RNAs Make Big Impact in Cardiac Repair. Circulation Research, 2015, 116, 393-395.	2.0	2
106	VISIONS: the art of science. Molecular Reproduction and Development, 2009, 76, 525-525.	1.0	0
107	Regenerative Medicine: Potential Mechanisms of Cardiac Recovery in Takotsubo Cardiomyopathy. Current Treatment Options in Cardiovascular Medicine, 2016, 18, 20.	0.4	0
108	Development of Cardiac Muscle. , 2018, , .		0

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109	Prometheus Unbound in Ya(p) Heart. Developmental Cell, 2019, 48, 741-742.	3.1	0