Atsuhiro Saito

List of Publications by Year
in descending order

72 papers	3,738 citations	147801 31 h-index	128289 60 g-index
72 all docs	72 docs citations	72 times ranked	4091 citing authors

#	Article	IF	Citations
1	Feasibility, Safety, and Therapeutic Efficacy of Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Sheets in a Porcine Ischemic Cardiomyopathy Model. Circulation, 2012, 126, S29-37.	1.6	421
2	Tissue engineered myoblast sheets improved cardiac function sufficiently to discontinue LVAS in a patient with DCM: report of a case. Surgery Today, 2012, 42, 181-184.	1.5	298
3	Enhanced Survival of Transplanted Human Induced Pluripotent Stem Cellâ€“Derived Cardiomyocytes by the Combination of Cell Sheets With the Pedicled Omental Flap Technique in a Porcine Heart. Circulation, 2013, 128, S87-94.	1.6	175
4	Activation of osteo-progenitor cells by a novel synthetic peptide derived from the bone morphogenetic protein-2 knuckle epitope. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2003, 1651, 60-67.	2.3	169
5	Phase I Clinical Trial of Autologous Stem Cellâ€“Sheet Transplantation Therapy for Treating Cardiomyopathy. Journal of the American Heart Association, 2017, 6, .	3.7	142
6	In situ tissue regeneration using a novel tissue-engineered, small-caliber vascular graft without cell seeding. Journal of Thoracic and Cardiovascular Surgery, 2008, 136, 900-907.	0.8	125
7	Composite Cell Sheets. Circulation, 2010, 122, S118-23.	1.6	121
8	Impaired Myocardium Regeneration With Skeletal Cell Sheetsâ€”A Preclinical Trial for Tissue-Engineered Regeneration Therapy. Transplantation, 2010, 90, 364-372.	1.0	118
9	Allogenic mesenchymal stem cell transplantation has a therapeutic effect in acute myocardial infarction in rats. Journal of Molecular and Cellular Cardiology, 2008, 44, 662-671.	1.9	115
10	Accelerated bone repair with the use of a synthetic BMP-2-derived peptide and bone-marrow stromal cells. Journal of Biomedical Materials Research Part B, 2005, 72A, 77-82.	3.1	95
11	Layered implantation of myoblast sheets attenuates adverse cardiac remodeling of the infarcted heart. Journal of Thoracic and Cardiovascular Surgery, 2009, 138, 985-993.	0.8	93
12	Enhanced Therapeutic Effects of Human iPS Cell Derived-Cardiomyocyte by Combined Cell-Sheets with Omental Flap Technique in Porcine Ischemic Cardiomyopathy Model. Scientific Reports, 2017, 7, 8824.	3.3	90
13	Development of <i>In Vitro</i> Drug-Induced Cardiotoxicity Assay by Using Three-Dimensional Cardiac Tissues Derived from Human Induced Pluripotent Stem Cells. Tissue Engineering - Part C: Methods, 2018, 24, 56-67.	2.1	88
14	A self-renewing, tissue-engineered vascular graft for arterial reconstruction. Journal of Thoracic and Cardiovascular Surgery, 2008, 136, 37-45.e1.	0.8	85
15	Prolonged ectopic calcification induced by BMP-2-derived synthetic peptide. Journal of Biomedical Materials Research Part B, 2004, 70A, 115-121.	3.1	82
16	Transplantation of Human-induced Pluripotent Stem Cell-derived Cardiomyocytes Is Superior to Somatic Stem Cell Therapy for Restoring Cardiac Function and Oxygen Consumption in a Porcine Model of Myocardial Infarction. Transplantation, 2019, 103, 291-298.	1.0	78
17	Skeletal myoblast sheet transplantation improves the diastolic function of a pressure-overloaded right heart. Journal of Thoracic and Cardiovascular Surgery, 2009, 138, 460-467.	0.8	77
18	Bioengineered Myocardium Derived from Induced Pluripotent Stem Cells Improves Cardiac Function and Attenuates Cardiac Remodeling Following Chronic Myocardial Infarction in Rats. Stem Cells Translational Medicine, 2012, 1, 430-437.	3.3	77

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19	Repair of 20-mm long rabbit radial bone defects using BMP-derived peptide combined with an Î±-tricalcium phosphate scaffold. Journal of Biomedical Materials Research - Part A, 2006, 77A, 700-706.	4.0	74
20	Novel regenerative therapy using cell-sheet covered with omentum flap delivers a huge number of cells in a porcine myocardial infarction model. Journal of Thoracic and Cardiovascular Surgery, 2011, 142, 1188-1196.	0.8	69
21	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
22	Tissue-Engineered Cardiac Constructs for Cardiac Repair. Annals of Thoracic Surgery, 2011, 91, 320-329.	1.3	61
23	Functional and Electrical Integration of Induced Phiripotent Stem Cell-Derived Cardiomyocytes in a Myocardial Infarction Rat Heart. Cell Transplantation, 2015, 24, 2479-2489.	2.5	58
24	Downregulation of ferritin heavy chain increases labile iron pool, oxidative stress and cell death in cardiomyocytes. Journal of Molecular and Cellular Cardiology, 2009, 46, 59-66.	1.9	51
25	In Vivo Differentiation of Induced Pluripotent Stem Cell-Derived Cardiomyocytes. Circulation Journal, 2013, 77, 1297-1306.	1.6	50
26	Myocardial regenerative therapy using a scaffold-free skeletal-muscle-derived cell sheet in patients with dilated cardiomyopathy even under a left ventricular assist device: a safety and feasibility study. Surgery Today, 2018, 48, 200-210.	1.5	47
27	Network formation through active migration of human vascular endothelial cells in a multilayered skeletal myoblast sheet. Biomaterials, 2013, 34, 662-668.	11.4	46
28	Immunologic targeting of CD30 eliminates tumourigenic human pluripotent stem cells, allowing safer clinical application of hiPSC-based cell therapy. Scientific Reports, 2018, 8, 3726.	3.3	44
29	Cell-sheet Therapy With Omentopexy Promotes Arteriogenesis and Improves Coronary Circulation Physiology in Failing Heart. Molecular Therapy, 2015, 23, 374-386.	8.2	43
30	Addition of Mesenchymal Stem Cells Enhances the Therapeutic Effects of Skeletal Myoblast Cell-Sheet Transplantation in a Rat Ischemic Cardiomyopathy Model. Tissue Engineering - Part A, 2014, 20, 140103055133005.	3.1	35
31	Cardiomyogenic induction of human mesenchymal stem cells by altered Rho family GTPase expression on dendrimer-immobilized surface with d-glucose display. Biomaterials, 2010, 31, 7666-7677.	11.4	32
32	SVVYGLR motif of the thrombin-cleaved N-terminal osteopontin fragment enhances the synthesis of collagen type III in myocardial fibrosis. Molecular and Cellular Biochemistry, 2015, 408, 191-203.	3.1	31
33	Newly Developed Tissue-Engineered Material for Reconstruction of Vascular Wall Without Cell Seeding. Annals of Thoracic Surgery, 2009, 88, 1269-1276.	1.3	29
34	Tissue Inhibitor of Metalloproteinase-1 and -3 Improves Cardiac Function in an Ischemic Cardiomyopathy Model Rat. Tissue Engineering - Part A, 2014, 20, 3073-3084.	3.1	29
35	Xenotransplantation of Bone Marrow-Derived Human Mesenchymal Stem Cell Sheets Attenuates Left Ventricular Remodeling in a Porcine Ischemic Cardiomyopathy Model. Tissue Engineering - Part A, 2015, 21, 2272-2280.	3.1	29
36	Transplantation of myoblast sheets that secrete the novel peptide SVVYGLR improves cardiac function in failing hearts. Cardiovascular Research, 2013, 99, 102-110.	3.8	26

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37	Clinical impact of combined transplantation of autologous skeletal myoblasts and bone marrow mononuclear cells in patients with severely deteriorated ischemic cardiomyopathy. Surgery Today, 2011, 41, 1029-1036.	1.5	24
38	Synthetic prostacyclin agonist, ONO1301, enhances endogenous myocardial repair in a hamster model of dilated cardiomyopathy: A promising regenerative therapy for the failing heart. Journal of Thoracic and Cardiovascular Surgery, 2013, 146, 1516-1525.	0.8	24
39	Improvement of Cardiac Stem Cell Sheet Therapy for Chronic Ischemic Injury by Adding Endothelial Progenitor Cell Transplantation: Analysis of Layer-Specific Regional Cardiac Function. Cell Transplantation, 2014, 23, 1305-1319.	2.5	23
40	Myoblast Sheet Can Prevent the Impairment of Cardiac Diastolic Function and Late Remodeling After Left Ventricular Restoration in Ischemic Cardiomyopathy. Transplantation, 2012, 93, 1108-1115.	1.0	22
41	Enhanced Pulmonary Vascular and Alveolar Development via Prenatal Administration of a Slow-Release Synthetic Prostacyclin Agonist in Rat Fetal Lung Hypoplasia. PLoS ONE, 2016, 11, e0161334.	2.5	22
42	Growth and differentiation potentials in confluent state of culture of human skeletal muscle myoblasts. Journal of Bioscience and Bioengineering, 2010, 109, 310-313.	2.2	21
43	Evaluation of vertical cell fluidity in a multilayered sheet of skeletal myoblasts. Journal of Bioscience and Bioengineering, 2012, 113, 128-131.	2.2	21
44	Impact of cardiac stem cell sheet transplantation on myocardial infarction. Surgery Today, 2013, 43, 970-976.	1.5	21
45	Development of a vitrification method for preserving human myoblast cell sheets for myocardial regeneration therapy. BMC Biotechnology, 2018, 18, 56.	3.3	21
46	Structural Changes in <i>N</i>-Glycans on Induced Pluripotent Stem Cells Differentiating Toward Cardiomyocytes. Stem Cells Translational Medicine, 2015, 4, 1258-1264.	3.3	20
47	Myocardial Layer-Specific Effect of Myoblast Cell-Sheet Implantation Evaluated by Tissue Strain Imaging. Circulation Journal, 2013, 77, 1063-1072.	1.6	18
48	Sustained-Release Delivery of Prostacyclin Analogue Enhances Bone Marrow-Cell Recruitment and Yields Functional Benefits for Acute Myocardial Infarction in Mice. PLoS ONE, 2013, 8, e69302.	2.5	17
49	Influence of coronary architecture on the variability in myocardial infarction induced by coronary ligation in rats. PLoS ONE, 2017, 12, e0183323.	2.5	16
50	Transplantation of elastin-secreting myoblast sheets improves cardiac function in infarcted rat heart. Molecular and Cellular Biochemistry, 2012, 368, 203-214.	3.1	15
51	Impact of cardiac support device combined with slow-release prostacyclin agonist in a canine ischemic cardiomyopathy model. Journal of Thoracic and Cardiovascular Surgery, 2014, 147, 1081-1087.	0.8	15
52	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
53	A slow-releasing form of prostacyclin agonist (ONO1301SR) enhances endogenous secretion of multiple cardiotherapeutic cytokines and improves cardiac function in a rapid-pacingâ€“induced model of canine heart failure. Journal of Thoracic and Cardiovascular Surgery, 2013, 146, 413-421.	0.8	13
54	Emerging innovation towards safety in the clinical application of ESCs and iPSCs. Nature Reviews Cardiology, 2014, 11, 553-554.	13.7	13

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55	Human Cardiac Stem Cells With Reduced Notch Signaling Show Enhanced Therapeutic Potential in a Rat Acute Infarction Model. Circulation Journal, 2014, 78, 222-231.	1.6	13
56	Improvement of cardiac function after implanting the osteopontin-derived peptide SVVYGLR in a hamster model of dilated cardiomyopathy. Interactive Cardiovascular and Thoracic Surgery, 2015, 21, 506-514.	1.1	12
57	Intratumoral injection of hemagglutinating virus of Japan-envelope vector yielded an antitumor effect for advanced melanoma: a phase I/IIa clinical study. Cancer Immunology, Immunotherapy, 2020, 69, 1131-1140.	4.2	12
58	Biodegradable vs Nonbiodegradable Cardiac Support Device for Treating Ischemic Cardiomyopathy in a Canine Heart. Seminars in Thoracic and Cardiovascular Surgery, 2017, 29, 51-61.	0.6	11
59	Myogenic induction of human mesenchymal stem cells by culture on dendrimer-immobilized surface with d-glucose display. Journal of Bioscience and Bioengineering, 2010, 109, 55-61.	2.2	10
60	Eliminating residual iPS cells for safety in clinical application. Protein and Cell, 2015, 6, 469-471.	11.0	10
61	CXCL4/PF4 is a predictive biomarker of cardiac differentiation potential of human induced pluripotent stem cells. Scientific Reports, 2019, 9, 4638.	3.3	10
62	Role and therapeutic effects of skeletal muscle-derived non-myogenic cells in a rat myocardial infarction model. Stem Cell Research and Therapy, 2020, 11, 69.	5.5	8
63	LamininÎ±2-secreting fibroblasts enhance the therapeutic effect of skeletal myoblast sheets. European Journal of Cardio-thoracic Surgery, 2016, 51, ezw296.	1.4	7
64	Development of a practical sandwich assay to detect human pluripotent stem cells using cell culture media. Regenerative Therapy, 2017, 6, 1-8.	3.0	7
65	Allogenic Skeletal Myoblast Transplantation in Acute Myocardial Infarction Model Rats. Transplantation, 2011, 91, 425-431.	1.0	7
66	Establishing New Porcine Ischemic Cardiomyopathy Model by Transcatheter Ischemia-Reperfusion of the Entire Left Coronary Artery System for Preclinical Experimental Studies. Transplantation, 2011, 92, e34-e35.	1.0	6
67	Sirtuin1 Regulates the Stem Cell Therapeutic Effects on Regenerative Capability for Treating Severe Heart Failure in a Juvenile Animal Model. Annals of Thoracic Surgery, 2016, 102, 803-812.	1.3	6
68	Adipose tissueâ€"derived multi-lineage progenitor cells improve left ventricular dysfunction in porcine ischemic cardiomyopathy model. Journal of Heart and Lung Transplantation, 2017, 36, 237-239.	0.6	6
69	Novel regenerative therapy combined with transphrenic peritoneoscopy-assisted omentopexy. Interactive Cardiovascular and Thoracic Surgery, 2018, 26, 993-1001.	1.1	5
70	Cardioprotective effects on ischemic myocardium induced by SVVYGLR peptide via its angiogenic-promoting activity. Tissue Engineering and Regenerative Medicine, 2015, 12, 162-171.	3.7	1
71	Measurement of glutamate, glutamine and .GAMMA.-aminobutylate by biosensor.. Journal of Advanced Science, 1997, 9, 93-94.	0.1	1
72	Smart Biomaterials for Immunomodulation. Drug Delivery System, 2013, 28, 135-148.	0.0	0