Oscar J Abilez

List of Publications by Year
in descending order

59 papers	4,963 citations	172457 29 h-index	254184 43 g-index
65 all docs	65 docs citations	65 times ranked	6742 citing authors

#	ARTICLE	IF	CITATIONS
1	Transcriptome analysis of non human primate-induced pluripotent stem cell-derived cardiomyocytes in 2D monolayer culture vs. 3D engineered heart tissue. Cardiovascular Research, 2021, 117, 2125-2136.	3.8	12
2	Endogenous Retrovirus-Derived lncRNA BANCR Promotes Cardiomyocyte Migration in Humans and Non-human Primates. Developmental Cell, 2020, 54, 694-709.e9.	7.0	37
3	Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. Communications Biology, 2019, 2, 170.	4.4	64
4	An <i>in Vivo</i> miRNA Delivery System for Restoring Infarcted Myocardium. ACS Nano, 2019, 13, 9880-9894.	14.6	101
5	Passive Stretch Induces Structural and Functional Maturation of Engineered Heart Muscle as Predicted by Computational Modeling. Stem Cells, 2018, 36, 265-277.	3.2	111
6	Big bottlenecks in cardiovascular tissue engineering. Communications Biology, 2018, 1, 199.	4.4	66
7	Partial Reprogramming of Pluripotent Stem Cell-Derived Cardiomyocytes into Neurons. Scientific Reports, 2017, 7, 44840.	3.3	16
8	Anisotropic microfibrous scaffolds enhance the organization and function of cardiomyocytes derived from induced pluripotent stem cells. Biomaterials Science, 2017, 5, 1567-1578.	5.4	68
9	Optophysiology of cardiomyocytes: characterizing cellular motion with quantitative phase imaging. Biomedical Optics Express, 2017, 8, 4652.	2.9	2
10	Characterizing Cardiomyocytes Motion with Quantitative Phase Imaging. , 2017, , .		2
11	iPSC-derived cardiomyocytes reveal abnormal TGF-Î² signalling in left ventricular non-compaction cardiomyopathy. Nature Cell Biology, 2016, 18, 1031-1042.	10.3	148
12	CD13 and ROR2 Permit Isolation of Highly Enriched Cardiac Mesoderm from Differentiating Human Embryonic Stem Cells. Stem Cell Reports, 2016, 6, 95-108.	4.8	30
13	A 3D boost. Nature Materials, 2016, 15, 259-261.	27.5	5
14	Engineered heart tissues and induced pluripotent stem cells: Macro- and microstructures for disease modeling, drug screening, and translational studies. Advanced Drug Delivery Reviews, 2016, 96, 234-244.	13.7	136
15	Human Engineered Heart Muscles Engraft and Survive Long Term in a Rodent Myocardial Infarction Model. Circulation Research, 2015, 117, 720-730.	4.5	197
16	Abstract 248: Aberrant TGFÎ² Signaling as an Etiology of Left Ventricular Non-compaction Cardiomyopathy. Circulation Research, 2015, 117, .	4.5	0
17	Human pluripotent stem cells (hPSCs) for heart regeneration. , 2014, , 297-324.		0
18	Human pluripotent stem cell tools for cardiac optogenetics. , 2014, 2014, 6171-4.		13

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19	Effect of Human Donor Cell Source on Differentiation and Function of Cardiac Induced Pluripotent Stem Cells. Journal of the American College of Cardiology, 2014, 64, 436-448.	2.8	119
20	Chemically defined generation of human cardiomyocytes. Nature Methods, 2014, 11, 855-860.	19.0	1,320
21	Multi-cellular interactions sustain long-term contractility of human pluripotent stem cell-derived cardiomyocytes. American Journal of Translational Research (discontinued), 2014, 6, 724-35.	0.0	32
22	Differential stickiness. Nature Materials, 2013, 12, 474-476.	27.5	0
23	Optogenetic LED array for perturbing cardiac electrophysiology. , 2013, 2013, 1619-22.		5
24	Robust pluripotent stem cell expansion and cardiomyocyte differentiation<i>via</i>geometric patterning. Integrative Biology (United Kingdom), 2013, 5, 1495-1506.	1.3	24
25	Abnormal Calcium Handling Properties Underlie Familial Hypertrophic Cardiomyopathy Pathology in Patient-Specific Induced Pluripotent Stem Cells. Cell Stem Cell, 2013, 12, 101-113.	11.1	584
26	Label-free electrophysiological cytometry for stem cell-derived cardiomyocyte clusters. Lab on A Chip, 2013, 13, 220-228.	6.0	29
27	Prospective isolation of human embryonic stem cell-derived cardiovascular progenitors that integrate into human fetal heart tissue. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3405-3410.	7.1	57
28	Cardiac optogenetics. , 2012, 2012, 1386-9.		19
29	Computational Modelling of Optogenetics in Cardiac Cells. , 2012, , .		0
30	Patient-Specific Induced Pluripotent Stem Cells as a Model for Familial Dilated Cardiomyopathy. Science Translational Medicine, 2012, 4, 130ra47.	12.4	590
31	Computational optogenetics: A novel continuum framework for the photoelectrochemistry of living systems. Journal of the Mechanics and Physics of Solids, 2012, 60, 1158-1178.	4.8	33
32	Stretching Skeletal Muscle: Chronic Muscle Lengthening through Sarcomerogenesis. PLoS ONE, 2012, 7, e45661.	2.5	92
33	IN VITRO/IN SILICO CHARACTERIZATION OF ACTIVE AND PASSIVE STRESSES IN CARDIAC MUSCLE. International Journal for Multiscale Computational Engineering, 2012, 10, 171-188.	1.2	13
34	Electrophysiological Modeling of Channelrhodophsin-2 in Cardiac Cells. Biophysical Journal, 2011, 100, 437a.	0.5	0
35	Multiscale Computational Models for Optogenetic Control of Cardiac Function. Biophysical Journal, 2011, 101, 1326-1334.	0.5	91
36	In vitro and In silico Optogenetic Control of Differentiated Human Pluripotent Stem Cells. Biophysical Journal, 2011, 100, 368a.	0.5	1

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37	Vascular anastomosis using controlled phase transitions in poloxamer gels. Nature Medicine, 2011, 17, 1147-1152.	30.7	84
38	Localized Control of Exsanguinating Arterial Hemorrhage: An Experimental Model. Polski Przeglad Chirurgiczny, 2011, 83, 1-9.	0.4	1
39	Computational modeling of growth: systemic and pulmonary hypertension in the heart. Biomechanics and Modeling in Mechanobiology, 2011, 10, 799-811.	2.8	84
40	Stimulation and artifact-free extracellular electrophysiological recording of cells in suspension. , 2011, 2011, 4030-3.		4
41	Stretchable microelectrode array using room-temperature liquid alloy interconnects. Journal of Micromechanics and Microengineering, 2011, 21, 054015.	2.6	8
42	A multiscale model for eccentric and concentric cardiac growth through sarcomerogenesis. Journal of Theoretical Biology, 2010, 265, 433-442.	1.7	192
43	Power Law as a Method for Ultrasound Detection of Internal Bleeding: In Vivo Rabbit Validation. IEEE Transactions on Biomedical Engineering, 2010, 57, 2870-2875.	4.2	3
44	A generic approach towards finite growth with examples of athlete's heart, cardiac dilation, and cardiac wall thickening. Journal of the Mechanics and Physics of Solids, 2010, 58, 1661-1680.	4.8	125
45	A matrix micropatterning platform for cell localization and stem cell fate determination. Acta Biomaterialia, 2010, 6, 4614-4621.	8.3	49
46	In Vitro Assessment of Rat Heart Force Generation: A Quantitative Approach for Predicting Outcomes From Pluripotent Stem Cell-Derived Therapy for Myocardial Infarction. , 2010, , .		0
47	Dynamic MicroRNA Expression Programs During Cardiac Differentiation of Human Embryonic Stem Cells. Circulation: Cardiovascular Genetics, 2010, 3, 426-435.	5.1	176
48	Lateral Movement of Endografts Within the Aneurysm Sac Is an Indicator of Stent-Graft Instability. Journal of Endovascular Therapy, 2008, 15, 335-343.	1.5	37
49	P134. Journal of Surgical Research, 2007, 137, 289-290.	1.6	0
50	Iliac fixation inhibits migration of both suprarenal and infrarenal aortic endografts. Journal of Vascular Surgery, 2007, 45, 250-257.	1.1	60
51	BioMEMS Platform for Electromechanical Stimulation of Cell Culture. , 2007, , .		0
52	In vivo imaging and evaluation of different biomatrices for improvement of stem cell survival. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 465-468.	2.7	35
53	Pulsatile Pressure System for Cellular Mechanical Stimulation. , 2007, , .		0
54	A new culture system shows that stem cells can be grown in 3-D and under physiologic pulsatile conditions for tissue engineering of vascular grafts. Journal of Surgical Research, 2006, 130, 265.	1.6	0

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55	A Novel Culture System Shows that Stem Cells Can be Grown in 3D and Under Physiologic Pulsatile Conditions for Tissue Engineering of Vascular Grafts. Journal of Surgical Research, 2006, 132, 170-178.	1.6	30
56	P19 Progenitor Cells Progress to Organized Contracting Myocytes After Chemical and Electrical Stimulation:Implications for Vascular Tissue Engineering. Journal of Endovascular Therapy, 2006, 13, 377-388.	1.5	16
57	Adaptative Media Remodeling of the Uterine Artery During Pregnancy. Fertility and Sterility, 2005, 84, S399.	1.0	1
58	Superficial femoral artery transposition repair for isolated superior mesenteric artery dissection. Journal of Vascular Surgery, 2005, 42, 788-791.	1.1	38
59	109. Journal of Minimally Invasive Gynecology, 2005, 12, 45-46.	0.6	0