

Oscar J Abilez

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

4,963
citations

172207

29
h-index

253896

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. | 1.8 | 12 |
| 2 | Endogenous Retrovirus-Derived lncRNA BANCR Promotes Cardiomyocyte Migration in Humans and Non-human Primates. Developmental Cell, 2020, 54, 694-709.e9. | 3.1 | 37 |
| 3 | Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. Communications Biology, 2019, 2, 170. | 2.0 | 64 |
| 4 | An <i>in Vivo</i> miRNA Delivery System for Restoring Infarcted Myocardium. ACS Nano, 2019, 13, 9880-9894. | 7.3 | 101 |
| 5 | Passive Stretch Induces Structural and Functional Maturation of Engineered Heart Muscle as Predicted by Computational Modeling. Stem Cells, 2018, 36, 265-277. | 1.4 | 111 |
| 6 | Big bottlenecks in cardiovascular tissue engineering. Communications Biology, 2018, 1, 199. | 2.0 | 66 |
| 7 | Partial Reprogramming of Pluripotent Stem Cell-Derived Cardiomyocytes into Neurons. Scientific Reports, 2017, 7, 44840. | 1.6 | 16 |
| 8 | Anisotropic microfibrillar scaffolds enhance the organization and function of cardiomyocytes derived from induced pluripotent stem cells. Biomaterials Science, 2017, 5, 1567-1578. | 2.6 | 68 |
| 9 | Optophysiology of cardiomyocytes: characterizing cellular motion with quantitative phase imaging. Biomedical Optics Express, 2017, 8, 4652. | 1.5 | 2 |
| 10 | Characterizing Cardiomyocytes Motion with Quantitative Phase Imaging. , 2017, , . | | 2 |
| 11 | iPSC-derived cardiomyocytes reveal abnormal TGF- β signalling in left ventricular non-compaction cardiomyopathy. Nature Cell Biology, 2016, 18, 1031-1042. | 4.6 | 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. | 2.3 | 30 |
| 13 | A 3D boost. Nature Materials, 2016, 15, 259-261. | 13.3 | 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. | 6.6 | 136 |
| 15 | Human Engineered Heart Muscles Engraft and Survive Long Term in a Rodent Myocardial Infarction Model. Circulation Research, 2015, 117, 720-730. | 2.0 | 197 |
| 16 | Abstract 248: Aberrant TGF- β Signaling as an Etiology of Left Ventricular Non-compaction Cardiomyopathy. Circulation Research, 2015, 117, . | 2.0 | 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. <i>Journal of the American College of Cardiology</i> , 2014, 64, 436-448. | 1.2 | 119 |
| 20 | Chemically defined generation of human cardiomyocytes. <i>Nature Methods</i> , 2014, 11, 855-860. | 9.0 | 1,320 |
| 21 | Multi-cellular interactions sustain long-term contractility of human pluripotent stem cell-derived cardiomyocytes. <i>American Journal of Translational Research (discontinued)</i> , 2014, 6, 724-35. | 0.0 | 32 |
| 22 | Differential stickiness. <i>Nature Materials</i> , 2013, 12, 474-476. | 13.3 | 0 |
| 23 | Optogenetic LED array for perturbing cardiac electrophysiology. , 2013, 2013, 1619-22. | | 5 |
| 24 | Robust pluripotent stem cell expansion and cardiomyocyte differentiation via geometric patterning. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 1495-1506. | 0.6 | 24 |
| 25 | Abnormal Calcium Handling Properties Underlie Familial Hypertrophic Cardiomyopathy Pathology in Patient-Specific Induced Pluripotent Stem Cells. <i>Cell Stem Cell</i> , 2013, 12, 101-113. | 5.2 | 584 |
| 26 | Label-free electrophysiological cytometry for stem cell-derived cardiomyocyte clusters. <i>Lab on A Chip</i> , 2013, 13, 220-228. | 3.1 | 29 |
| 27 | Prospective isolation of human embryonic stem cell-derived cardiovascular progenitors that integrate into human fetal heart tissue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 3405-3410. | 3.3 | 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. <i>Science Translational Medicine</i> , 2012, 4, 130ra47. | 5.8 | 590 |
| 31 | Computational optogenetics: A novel continuum framework for the photoelectrochemistry of living systems. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 1158-1178. | 2.3 | 33 |
| 32 | Stretching Skeletal Muscle: Chronic Muscle Lengthening through Sarcomerogenesis. <i>PLoS ONE</i> , 2012, 7, e45661. | 1.1 | 92 |
| 33 | IN VITRO/IN SILICO CHARACTERIZATION OF ACTIVE AND PASSIVE STRESSES IN CARDIAC MUSCLE. <i>International Journal for Multiscale Computational Engineering</i> , 2012, 10, 171-188. | 0.8 | 13 |
| 34 | Electrophysiological Modeling of Channelrhodopsin-2 in Cardiac Cells. <i>Biophysical Journal</i> , 2011, 100, 437a. | 0.2 | 0 |
| 35 | Multiscale Computational Models for Optogenetic Control of Cardiac Function. <i>Biophysical Journal</i> , 2011, 101, 1326-1334. | 0.2 | 91 |
| 36 | In vitro and In silico Optogenetic Control of Differentiated Human Pluripotent Stem Cells. <i>Biophysical Journal</i> , 2011, 100, 368a. | 0.2 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Vascular anastomosis using controlled phase transitions in poloxamer gels. <i>Nature Medicine</i> , 2011, 17, 1147-1152. | 15.2 | 84 |
| 38 | Localized Control of Exsanguinating Arterial Hemorrhage: An Experimental Model. <i>Polski Przegląd Chirurgiczny</i> , 2011, 83, 1-9. | 0.2 | 1 |
| 39 | Computational modeling of growth: systemic and pulmonary hypertension in the heart. <i>Biomechanics and Modeling in Mechanobiology</i> , 2011, 10, 799-811. | 1.4 | 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. <i>Journal of Micromechanics and Microengineering</i> , 2011, 21, 054015. | 1.5 | 8 |
| 42 | A multiscale model for eccentric and concentric cardiac growth through sarcomerogenesis. <i>Journal of Theoretical Biology</i> , 2010, 265, 433-442. | 0.8 | 192 |
| 43 | Power Law as a Method for Ultrasound Detection of Internal Bleeding: In Vivo Rabbit Validation. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 2870-2875. | 2.5 | 3 |
| 44 | A generic approach towards finite growth with examples of athlete's heart, cardiac dilation, and cardiac wall thickening. <i>Journal of the Mechanics and Physics of Solids</i> , 2010, 58, 1661-1680. | 2.3 | 125 |
| 45 | A matrix micropatterning platform for cell localization and stem cell fate determination. <i>Acta Biomaterialia</i> , 2010, 6, 4614-4621. | 4.1 | 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. <i>Circulation: Cardiovascular Genetics</i> , 2010, 3, 426-435. | 5.1 | 176 |
| 48 | Lateral Movement of Endografts Within the Aneurysm Sac Is an Indicator of Stent-Graft Instability. <i>Journal of Endovascular Therapy</i> , 2008, 15, 335-343. | 0.8 | 37 |
| 49 | P134. <i>Journal of Surgical Research</i> , 2007, 137, 289-290. | 0.8 | 0 |
| 50 | Iliac fixation inhibits migration of both suprarenal and infrarenal aortic endografts. <i>Journal of Vascular Surgery</i> , 2007, 45, 250-257. | 0.6 | 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. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2007, 1, 465-468. | 1.3 | 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. <i>Journal of Surgical Research</i> , 2006, 130, 265. | 0.8 | 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. | 0.8 | 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. | 0.8 | 16 |
| 57 | Adaptative Media Remodeling of the Uterine Artery During Pregnancy. Fertility and Sterility, 2005, 84, S399. | 0.5 | 1 |
| 58 | Superficial femoral artery transposition repair for isolated superior mesenteric artery dissection. Journal of Vascular Surgery, 2005, 42, 788-791. | 0.6 | 38 |
| 59 | 109. Journal of Minimally Invasive Gynecology, 2005, 12, 45-46. | 0.3 | 0 |