Pinar Zorlutuna

List of Publications by Year
in descending order

67 papers	5,096 citations	172457 29 h-index	110387 64 g-index
76 all docs	76 docs citations	76 times ranked	7810 citing authors

#	Article	IF	Citations
1	Electrically conductive 3D printed Ti3C2T MXene-PEG composite constructs for cardiac tissue engineering. Acta Biomaterialia, 2022, 139, 179-189.	8.3	70
2	Human Heart Anoxia and Reperfusion Tissue (HEART) Model for the Rapid Study of Exosome Bound miRNA Expression As Biomarkers for Myocardial Infarction. Small, 2022, 18, .	10.0	13
3	Effect of cellular and ECM aging on human iPSC-derived cardiomyocyte performance, maturity and senescence. Biomaterials, 2021, 268, 120554.	11.4	44
4	Cardiac Muscle Cellâ€Based Coupled Oscillator Network for Collective Computing. Advanced Intelligent Systems, 2021, 3, 2000253.	6.1	4
5	A multiplexed ion-exchange membrane-based miRNA (MIXÂ·miR) detection platform for rapid diagnosis of myocardial infarction. Lab on A Chip, 2021, 21, 3876-3887.	6.0	11
6	Cardiac Muscle Cellâ€Based Coupled Oscillator Network for Collective Computing. Advanced Intelligent Systems, 2021, 3, 2170043.	6.1	0
7	Tunable Human Myocardium Derived Decellularized Extracellular Matrix for 3D Bioprinting and Cardiac Tissue Engineering. Gels, 2021, 7, 70.	4.5	51
8	Immune System Effects on Breast Cancer. Cellular and Molecular Bioengineering, 2021, 14, 279-292.	2.1	9
9	Aged Breast Extracellular Matrix Drives Mammary Epithelial Cells to an Invasive and Cancerâ€Like Phenotype. Advanced Science, 2021, 8, e2100128.	11.2	19
10	Cardiac Cell Patterning on Customized Microelectrode Arrays for Electrophysiological Recordings. Micromachines, 2021, 12, 1351.	2.9	6
11	Adipose stem cell secretome markedly improves rodent heart and human induced pluripotent stem cell-derived cardiomyocyte recovery from cardioplegic transport solution exposure. Stem Cells, 2021, 39, 170-182.	3.2	1
12	Identification of astroglia-like cardiac nexus glia that are critical regulators of cardiac development and function. PLoS Biology, 2021, 19, e3001444.	5.6	15
13	Adipose stem cell secretome markedly improves rodent heart and human induced pluripotent stem cell-derived cardiomyocyte recovery from cardioplegic transport solution exposure. Stem Cells, 2021, 39, 170-182.	3.2	9
14	Distinct glycosylation in membrane proteins within neonatal versus adult myocardial tissue. Matrix Biology, 2020, 85-86, 173-188.	3.6	19
15	Constant-potential environment for activating and synchronizing cardiomyocyte colonies with on-chip ion-depleting perm-selective membranes. Lab on A Chip, 2020, 20, 4273-4284.	6.0	5
16	Tissue Failure Propagation as Mediated by Circulatory Flow. Biophysical Journal, 2020, 119, 2573-2583.	0.5	3
17	The Extracellular Matrix and Vesicles Modulate the Breast Tumor Microenvironment. Bioengineering, 2020, 7, 124.	3.5	17
18	Breast cancer models: Engineering the tumor microenvironment. Acta Biomaterialia, 2020, 106, 1-21.	8.3	112

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19	Dual Crosslinked Gelatin Methacryloyl Hydrogels for Photolithography and 3D Printing. Gels, 2019, 5, 34.	4.5	27
20	Electro-plasmonic nanoantenna: A nonfluorescent optical probe for ultrasensitive label-free detection of electrophysiological signals. Science Advances, 2019, 5, eaav9786.	10.3	33
21	HIV-Nef Protein Transfer to Endothelial Cells Requires Rac1 Activation and Leads to Endothelial Dysfunction Implications for Statin Treatment in HIV Patients. Circulation Research, 2019, 125, 805-820.	4.5	20
22	CRISPR/Cas9 Edited Induced Pluripotent Stem Cell-Based Vascular Tissues to Model Aging and Disease-Dependent Impairment. Tissue Engineering - Part A, 2019, 25, 759-772.	3.1	16
23	Editorial: Adverse Reactions to Biomaterials: State of the Art in Biomaterial Risk Assessment, Immunomodulation and in vitro Models for Biomaterial Testing. Frontiers in Bioengineering and Biotechnology, 2019, 7, 15.	4.1	8
24	In vitro aged, hiPSC-origin engineered heart tissue models with age-dependent functional deterioration to study myocardial infarction. Acta Biomaterialia, 2019, 94, 372-391.	8.3	36
25	YAP and TAZ limit cytoskeletal and focal adhesion maturation to enable persistent cell motility. Journal of Cell Biology, 2019, 218, 1369-1389.	5.2	115
26	Stromal cell-laden 3D hydrogel microwell arrays as tumor microenvironment model for studying stiffness dependent stromal cell-cancer interactions. Biomaterials, 2018, 170, 37-48.	11.4	77
27	Hollow microcarriers for largeâ€scale expansion of anchorageâ€dependent cells in a stirred bioreactor. Biotechnology and Bioengineering, 2018, 115, 1717-1728.	3.3	19
28	Enabling personalized implant and controllable biosystem development through 3D printing. Biotechnology Advances, 2018, 36, 521-533.	11.7	90
29	Interdependence theory of tissue failure: bulk and boundary effects. Royal Society Open Science, 2018, 5, 171395.	2.4	5
30	Effect of Substrate Stiffness on Mechanical Coupling and Force Propagation at the Infarct Boundary. Biophysical Journal, 2018, 115, 1966-1980.	0.5	21
31	3D hydrogel-based microwell arrays as a tumor microenvironment model to study breast cancer growth. Biomedical Materials (Bristol), 2017, 12, 025009.	3.3	62
32	Muscleâ€Cellâ€Based â€œLiving Diodesâ€. Advanced Biology, 2017, 1, e1600035.	3.0	7
33	Human iPSC-derived myocardium-on-chip with capillary-like flow for personalized medicine. Biomicrofluidics, 2017, 11, 024105.	2.4	76
34	Cardiac Muscle-cell Based Actuator and Self-stabilizing Biorobot - PART 1. Journal of Visualized Experiments, 2017, , .	0.3	2
35	Living Diodes: Muscleâ€Cellâ€Based â€œLiving Diodesâ€• (Adv. Biosys. 1â€2/2017). Advanced Biology, 2017, 1, .	3.0	0
36	Cardiac Muscle Cell-based Actuator and Self-stabilizing Biorobot - Part 2. Journal of Visualized Experiments, 2017, , .	0.3	2

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37	Engineered myocardium model to study the roles of HIF-1Î± and HIF1A-AS1 in paracrine-only signaling under pathological level oxidative stress. Acta Biomaterialia, 2017, 58, 323-336.	8.3	27
38	Transcriptome profiling of 3D co-cultured cardiomyocytes and endothelial cells under oxidative stress using a photocrosslinkable hydrogel system. Acta Biomaterialia, 2017, 58, 337-348.	8.3	11
39	Nanostethoscopy: Atomic Force Microscopy Probe Contact Force versus Measured Amplitude of Cardiomyocytic Contractions. Journal of Bionanoscience, 2017, 11, 319-322.	0.4	5
40	Dynamic three-dimensional micropatterned cell co-cultures within photocurable and chemically degradable hydrogels. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 690-699.	2.7	15
41	Modulation of the contractility of micropatterned myocardial cells with nanoscale forces using atomic force microscopy. Nanobiomedicine, 2016, 3, 184954351667534.	5.7	12
42	Determining Stem Cell Fate with Hydrogels. , 2016, , 53-86.		0
43	Development and characterization of muscle-based actuators for self-stabilizing swimming biorobots. Lab on A Chip, 2016, 16, 3473-3484.	6.0	39
44	Microfabrication of Patterned Co-cultures for Controllable Cellâ€“Cell Interfaces. , 2016, , 47-67.		2
45	Fiber-reinforced hydrogel scaffolds for heart valve tissue engineering. Journal of Biomaterials Applications, 2014, 29, 399-410.	2.4	102
46	Direct-write bioprinting of cell-laden methacrylated gelatin hydrogels. Biofabrication, 2014, 6, 024105.	7.1	528
47	Engineered cell-laden human protein-based elastomer. Biomaterials, 2013, 34, 5496-5505.	11.4	99
48	The Expanding World of Tissue Engineering: The Building Blocks and New Applications of Tissue Engineered Constructs. IEEE Reviews in Biomedical Engineering, 2013, 6, 47-62.	18.0	77
49	Directed Differentiation of Sizeâ€Controlled Embryoid Bodies Towards Endothelial and Cardiac Lineages in RGDâ€Modified Poly(Ethylene Glycol) Hydrogels. Advanced Healthcare Materials, 2013, 2, 195-205.	7.6	58
50	Carbon-Nanotube-Embedded Hydrogel Sheets for Engineering Cardiac Constructs and Bioactuators. ACS Nano, 2013, 7, 2369-2380.	14.6	789
51	3-D biofabrication using stereolithography for biology and medicine. , 2012, 2012, 6805-8.		10
52	Directed endothelial cell morphogenesis in micropatterned gelatin methacrylate hydrogels. Biomaterials, 2012, 33, 9009-9018.	11.4	221
53	Microfabrication of complex porous tissue engineering scaffolds using 3D projection stereolithography. Biomaterials, 2012, 33, 3824-3834.	11.4	560
54	â€œLivingâ€•Microvascular Stamp for Patterning of Functional Neovessels; Orchestrated Control of Matrix Property and Geometry. Advanced Materials, 2012, 24, 58-63.	21.0	62

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55	Microfabricated Biomaterials for Engineering 3D Tissues. Advanced Materials, 2012, 24, 1782-1804.	21.0	351
56	Patterning the differentiation of C2C12 skeletal myoblasts. Integrative Biology (United Kingdom), 2011, 3, 897.	1.3	164
57	Stereolithographyâ€Based Hydrogel Microenvironments to Examine Cellular Interactions. Advanced Functional Materials, 2011, 21, 3642-3651.	14.9	112
58	Both sides nanopatterned tubular collagen scaffolds as tissue-engineered vascular grafts. Journal of Tissue Engineering and Regenerative Medicine, 2010, 4, 628-637.	2.7	18
59	Three-dimensional photopatterning of hydrogels using stereolithography for long-term cell encapsulation. Lab on A Chip, 2010, 10, 2062.	6.0	450
60	Influence of nanopatterns on endothelial cell adhesion: Enhanced cell retention under shear stress. Acta Biomaterialia, 2009, 5, 2451-2459.	8.3	58
61	Nanopatterning of Collagen Scaffolds Improve the Mechanical Properties of Tissue Engineered Vascular Grafts. Biomacromolecules, 2009, 10, 814-821.	5.4	63
62	Biomaterials and tissue engineering research in Turkey: The METU Biomat Center experience. Biotechnology Journal, 2009, 4, 965-980.	3.5	5
63	Nanopatterned collagen tubes for vascular tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 373-377.	2.7	18
64	A novel construct as a cell carrier for tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 399-410.	3.5	7
65	Influence of Oxygen Plasma Modification on Surface Free Energy of PMMA Films and Cell Attachment. Macromolecular Symposia, 2008, 269, 128-137.	0.7	34
66	Influence of keratocytes and retinal pigment epithelial cells on the mechanical properties of polyester-based tissue engineering micropatterned films. Biomaterials, 2007, 28, 3489-3496.	11.4	27
67	Nanobiomaterials: a review of the existing science and technology, and new approaches. Journal of Biomaterials Science, Polymer Edition, 2006, 17, 1241-1268.	3.5	92