Ngan F Huang

List of Publications by Year
in descending order

90 papers	6,462 citations	61857 43 h-index	64668 79 g-index
92 all docs	92 docs citations	92 times ranked	9114 citing authors

#	Article	IF	Citations
1	Multifunctional in vivo vascular imaging using near-infrared II fluorescence. Nature Medicine, 2012, 18, 1841-1846.	15.2	836
2	Differentiation of human embryonic stem cells on three-dimensional polymer scaffolds. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12741-12746.	3.3	652
3	Boosting the down-shifting luminescence of rare-earth nanocrystals for biological imaging beyond 1500â€‰nm. Nature Communications, 2017, 8, 737.	5.8	416
4	Myotube Assembly on Nanofibrous and Micropatterned Polymers. Nano Letters, 2006, 6, 537-542.	4.5	293
5	Endothelial Cells Derived From Human iPSCS Increase Capillary Density and Improve Perfusion in a Mouse Model of Peripheral Arterial Disease. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, e72-9.	1.1	230
6	Mechanotransduction in endothelial cell migration. Journal of Cellular Biochemistry, 2005, 96, 1110-1126.	1.2	213
7	Injectable Biopolymers Enhance Angiogenesis after Myocardial Infarction. Tissue Engineering, 2005, 11, 1860-1866.	4.9	181
8	Regulation of vascular smooth muscle cells by micropatterning. Biochemical and Biophysical Research Communications, 2003, 307, 883-890.	1.0	166
9	Murine Model of Hindlimb Ischemia. Journal of Visualized Experiments, 2009, , .	0.2	142
10	Distilling complexity to advance cardiac tissue engineering. Science Translational Medicine, 2016, 8, 342ps13.	5.8	138
11	Embryonic Stem Cellâ€"Derived Endothelial Cells Engraft Into the Ischemic Hindlimb and Restore Perfusion. Arteriosclerosis, Thrombosis, and Vascular Biology, 2010, 30, 984-991.	1.1	126
12	Vascularization of three-dimensional engineered tissues for regenerative medicine applications. Acta Biomaterialia, 2016, 41, 17-26.	4.1	121
13	Conversion of Human Fibroblasts to Functional Endothelial Cells by Defined Factors. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 1366-1375.	1.1	113
14	Mesenchymal stem cells for vascular regeneration. Regenerative Medicine, 2008, 3, 877-892.	0.8	111
15	Nearâ€Infrared IIb Fluorescence Imaging of Vascular Regeneration with Dynamic Tissue Perfusion Measurement and High Spatial Resolution. Advanced Functional Materials, 2018, 28, 1803417.	7.8	107
16	Stem cell-based therapies to promote angiogenesis in ischemic cardiovascular disease. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H455-H465.	1.5	90
17	Engineering Biomimetic Materials for Skeletal Muscle Repair and Regeneration. Advanced Healthcare Materials, 2019, 8, e1801168.	3.9	90
18	Near-Infrared II Fluorescence for Imaging Hindlimb Vessel Regeneration With Dynamic Tissue Perfusion Measurement. Circulation: Cardiovascular Imaging, 2014, 7, 517-525.	1.3	88

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19	Human induced pluripotent stem cell-derived endothelial cells exhibit functional heterogeneity. American Journal of Translational Research (discontinued), 2013, 5, 21-35.	0.0	88
20	The modulation of endothelial cell morphology, function, and survival using anisotropic nanofibrillar collagen scaffolds. Biomaterials, 2013, 34, 4038-4047.	5.7	82
21	Avidity-controlled hydrogels for injectable co-delivery of induced pluripotent stem cell-derived endothelial cells and growth factors. Journal of Controlled Release, 2014, 191, 71-81.	4.8	82
22	Microvascular Endothelial Cells Migrate Upstream and Align Against the Shear Stress Field Created by Impinging Flow. Biophysical Journal, 2014, 106, 366-374.	0.2	79
23	Antibody Targeting of Stem Cells to Infarcted Myocardium. Stem Cells, 2007, 25, 712-717.	1.4	78
24	Mechanobiology of mesenchymal stem cells and their use in cardiovascular repair. Frontiers in Bioscience - Landmark, 2007, 12, 5098.	3.0	75
25	Bone marrow-derived mesenchymal stem cells in fibrin augment angiogenesis in the chronically infarcted myocardium. Regenerative Medicine, 2009, 4, 527-538.	0.8	72
26	Role of Extracellular Matrix Signaling Cues in Modulating Cell Fate Commitment for Cardiovascular Tissue Engineering. Advanced Healthcare Materials, 2014, 3, 628-641.	3.9	71
27	Anisotropic microfibrous scaffolds enhance the organization and function of cardiomyocytes derived from induced pluripotent stem cells. Biomaterials Science, 2017, 5, 1567-1578.	2.6	68
28	Big bottlenecks in cardiovascular tissue engineering. Communications Biology, 2018, 1, 199.	2.0	66
29	Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. Communications Biology, 2019, 2, 170.	2.0	64
30	Aligned nanofibrillar collagen regulates endothelial organization and migration. Regenerative Medicine, 2012, 7, 649-661.	0.8	60
31	Activation of the Wnt/Planar Cell Polarity Pathway Is Required for Pericyte Recruitment during Pulmonary Angiogenesis. American Journal of Pathology, 2015, 185, 69-84.	1.9	60
32	Endothelial Cell Mechanotransduction in the Dynamic Vascular Environment. Advanced Biology, 2019, 3, e1800252.	3.0	60
33	Aligned-Braided Nanofibrillar Scaffold with Endothelial Cells Enhances Arteriogenesis. ACS Nano, 2015, 9, 6900-6908.	7.3	58
34	Protein-engineered hydrogels enhance the survival of induced pluripotent stem cell-derived endothelial cells for treatment of peripheral arterial disease. Biomaterials Science, 2018, 6, 614-622.	2.6	58
35	Spatial patterning of endothelium modulates cell morphology, adhesiveness and transcriptional signature. Biomaterials, 2013, 34, 2928-2937.	5.7	56
36	Aligned nanofibrillar collagen scaffolds â€" Guiding lymphangiogenesis for treatment of acquired lymphedema. Biomaterials, 2016, 102, 259-267.	5.7	55

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37	Regulation of the Matrix Microenvironment for Stem Cell Engineering and Regenerative Medicine. Annals of Biomedical Engineering, 2011, 39, 1201-1214.	1.3	52
38	Bilayered vascular graft derived from human induced pluripotent stem cells with biomimetic structure and function. Regenerative Medicine, 2015, 10, 745-755.	0.8	51
39	nAChRs Mediate Human Embryonic Stem Cell-Derived Endothelial Cells: Proliferation, Apoptosis, and Angiogenesis. PLoS ONE, 2009, 4, e7040.	1.1	50
40	Nanoscale Patterning of Extracellular Matrix Alters Endothelial Function under Shear Stress. Nano Letters, 2016, 16, 410-419.	4.5	50
41	A matrix micropatterning platform for cell localization and stem cell fate determination. Acta Biomaterialia, 2010, 6, 4614-4621.	4.1	49
42	Combinatorial extracellular matrix microenvironments promote survival and phenotype of human induced pluripotent stem cell-derived endothelial cells in hypoxia. Acta Biomaterialia, 2016, 44, 188-199.	4.1	47
43	Rehabilitative exercise and spatially patterned nanofibrillar scaffolds enhance vascularization and innervation following volumetric muscle loss. Npj Regenerative Medicine, 2018, 3, 16.	2.5	47
44	Endothelial Cells Derived From Nuclear Reprogramming. Circulation Research, 2012, 111, 1363-1375.	2.0	46
45	Engineering of aligned skeletal muscle by micropatterning. American Journal of Translational Research (discontinued), 2010, 2, 43-55.	0.0	38
46	A rodent model of myocardial infarction for testing the efficacy of cells and polymers for myocardial reconstruction. Nature Protocols, 2006, 1, 1596-1609.	5.5	37
47	Role of Nitric Oxide Signaling in Endothelial Differentiation of Embryonic Stem Cells. Stem Cells and Development, 2010, 19, 1617-1626.	1.1	37
48	Chemical and Physical Regulation of Stem Cells and Progenitor Cells: Potential for Cardiovascular Tissue Engineering. Tissue Engineering, 2007, 13, 1809-1823.	4.9	35
49	Recent advances in bioprinting technologies for engineering cardiac tissue. Materials Science and Engineering C, 2021, 124, 112057.	3.8	35
50	A comparison of the pro-angiogenic potential of human induced pluripotent stem cell derived endothelial cells and induced endothelial cells in a murine model of peripheral arterial disease. International Journal of Cardiology, 2017, 234, 81-89.	0.8	33
51	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
52	Bioluminescence Imaging of Stem Cell-Based Therapeutics for Vascular Regeneration. Theranostics, 2012, 2, 346-354.	4.6	31
53	Biophysical and chemical effects of fibrin on mesenchymal stromal cell gene expression. Acta Biomaterialia, 2010, 6, 3947-3956.	4.1	27
54	Multicellular Interactions in 3D Engineered Myocardial Tissue. Frontiers in Cardiovascular Medicine, 2018, 5, 147.	1.1	27

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55	Extracellular Matrix-Based Biomaterials for Cardiovascular Tissue Engineering. Journal of Cardiovascular Development and Disease, 2021, 8, 137.	0.8	27
56	Regulation of the microenvironment for cardiac tissue engineering. Regenerative Medicine, 2017, 12, 187-201.	0.8	24
57	Polymer-DNA Nanoparticle-Induced CXCR4 Overexpression Improves Stem Cell Engraftment and Tissue Regeneration in a Mouse Hindlimb Ischemia Model. Theranostics, 2016, 6, 1176-1189.	4.6	23
58	Vascularization of Engineered Spatially Patterned Myocardial Tissue Derived From Human Pluripotent Stem Cells in vivo. Frontiers in Bioengineering and Biotechnology, 2019, 7, 208.	2.0	23
59	Manganeseâ€Enhanced Magnetic Resonance Imaging Enables In Vivo Confirmation of Periâ€Infarct Restoration Following Stem Cell Therapy in a Porcine Ischemiaâ€"Reperfusion Model. Journal of the American Heart Association, 2015, 4, .	1.6	21
60	Microfibrous Scaffolds Enhance Endothelial Differentiation and Organization of Induced Pluripotent Stem Cells. Cellular and Molecular Bioengineering, 2017, 10, 417-432.	1.0	21
61	Pre-Clinical Cell Therapeutic Approaches for Repair of Volumetric Muscle Loss. Bioengineering, 2020, 7, 97.	1.6	21
62	Combinatorial Extracellular Matrix Microenvironments for Probing Endothelial Differentiation of Human Pluripotent Stem Cells. Scientific Reports, 2017, 7, 6551.	1.6	20
63	Aligned Nanofibrillar Scaffolds for Controlled Delivery of Modified mRNA. Tissue Engineering - Part A, 2019, 25, 121-130.	1.6	20
64	Induced Pluripotent Stem Cellâ€"Derived Endothelial Cells in Insulin Resistance and Metabolic Syndrome. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, 2038-2042.	1.1	19
65	Transplantation of insulin-like growth factor-1 laden scaffolds combined with exercise promotes neuroregeneration and angiogenesis in a preclinical muscle injury model. Biomaterials Science, 2020, 8, 5376-5389.	2.6	16
66	Dual Delivery of BMP2 and IGF1 Through Injectable Hydrogel Promotes Cranial Bone Defect Healing. Tissue Engineering - Part A, 2022, 28, 760-769.	1.6	16
67	Embryonic Stem Cell-Derived Endothelial Cells for Treatment of Hindlimb Ischemia. Journal of Visualized Experiments, 2009, , .	0.2	15
68	Targeted delivery of human iPS-ECs overexpressing IL-8 receptors inhibits neointimal and inflammatory responses to vascular injury in the rat. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H705-H715.	1.5	12
69	Chemotaxis of human induced pluripotent stem cell-derived endothelial cells. American Journal of Translational Research (discontinued), 2013, 5, 510-20.	0.0	12
70	Tissue engineering of muscle on micropatterned polymer films. , 2004, 2004, 4966-9.		11
71	Small Molecule Derived From Carboxyethylpyrrole Protein Adducts Promotes Angiogenesis in a Mouse Model of Peripheral Arterial Disease. Journal of the American Heart Association, 2018, 7, e009234.	1.6	10
72	Proteomic identification of biomarkers of vascular injury. American Journal of Translational Research (discontinued), 2011, 3, 139-48.	0.0	10

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73	Characterization of a Fluorescent Probe for Imaging Nitric Oxide. Journal of Vascular Research, 2014, 51, 68-79.	0.6	8
74	Delivery of Human Stromal Vascular Fraction Cells on Nanofibrillar Scaffolds for Treatment of Peripheral Arterial Disease. Frontiers in Bioengineering and Biotechnology, 2020, 8, 689.	2.0	8
75	Multi-scale cellular engineering: From molecules to organ-on-a-chip. APL Bioengineering, 2020, 4, 010906.	3.3	8
76	Advances in three-dimensional bioprinted stem cell-based tissue engineering for cardiovascular regeneration. Journal of Molecular and Cellular Cardiology, 2022, 169, 13-27.	0.9	8
77	<i>peri</i>-Adventitial delivery of smooth muscle cells in porous collagen scaffolds for treatment of experimental abdominal aortic aneurysm. Biomaterials Science, 2021, 9, 6903-6914.	2.6	7
78	Comparative Effects of Basic Fibroblast Growth Factor Delivery or Voluntary Exercise on Muscle Regeneration after Volumetric Muscle Loss. Bioengineering, 2022, 9, 37.	1.6	7
79	In Vivo Study of Human Endothelial-Pericyte Interaction Using the Matrix Gel Plug Assay in Mouse. Journal of Visualized Experiments, 2016, , .	0.2	6
80	Delivery of hepatocyte growth factor mRNA from nanofibrillar scaffolds in a pig model of peripheral arterial disease. Regenerative Medicine, 2020, 15, 1761-1773.	0.8	5
81	Effects of nicotine on the translation of stem cell therapy. Regenerative Medicine, 2020, 15, 1679-1688.	0.8	5
82	Engineering Cardiovascular Tissue Chips for Disease Modeling and Drug Screening Applications. Frontiers in Bioengineering and Biotechnology, 2021, 9, 673212.	2.0	3
83	Modest Gains After an 8-Week Exercise Program Correlate With Reductions in Non-traditional Markers of Cardiovascular Risk. Frontiers in Cardiovascular Medicine, 2021, 8, 669110.	1.1	3
84	What Makes a Great Mentor: Interviews With Recipients of the ATVB Mentor of Women Award. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 2641-2647.	1.1	3
85	Tissue Engineering and Regenerative Medicine: Role of Extracellular Matrix Microenvironment. , 2013, , 313-323.		1
86	Mesenchymal Stem Cells for Tissue Regeneration. , 2011, , 49-70.		0
87	Abstract 269: Collagen Topographical Patterning Modulates Endothelial Cell Morphology, Gene Expression and Function. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, .	1.1	0
88	Abstract 15060: Protein-Engineered Hydrogels for Improved Efficacy of Stem Cell-Based Injection Therapy in a Murine Model of Peripheral Arterial Disease. Circulation, 2015, 132, .	1.6	0
89	Stem Cells: Efficacy in Peripheral Vascular Diseases. , 2018, , .		0
90	Abstract 83: Nanopatterned Collagen Scaffolds Promote Blood Perfusion in the Ischemic Limb. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	1.1	0