Carlijn Bouten

List of Publications by Year
in descending order

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264
papers

13,088
citations

28274

55
h-index

30922

102
g-index

281
all docs

281
docs citations

281
times ranked

13698
citing authors

#	ARTICLE	IF	CITATIONS
1	Total energy expenditure is repeatable in adults but not associated with short-term changes in body composition. Nature Communications, 2022, 13, 99.	12.8	7
2	Understanding and steering cell and matrix alignment in complex multi-cue environments. Biophysical Journal, 2022, 121, 264a.	0.5	0
3	Animal studies for the evaluation of in situ tissue-engineered vascular grafts â€” a systematic review, evidence map, and meta-analysis. Npj Regenerative Medicine, 2022, 7, 17.	5.2	10
4	Scaffold Geometry-Imposed Anisotropic Mechanical Loading Guides the Evolution of the Mechanical State of Engineered Cardiovascular Tissues in vitro. Frontiers in Bioengineering and Biotechnology, 2022, 10, 796452.	4.1	4
5	Mechanisms of Calcification in Materials for Valvular and Vascular In Situ Tissue Engineering. European Journal of Vascular and Endovascular Surgery, 2022, 63, e44-e45.	1.5	1
6	Engineering tissue morphogenesis: taking it up a Notch. Trends in Biotechnology, 2022, 40, 945-957.	9.3	7
7	Substrate Stiffness Determines the Establishment of Apical-Basal Polarization in Renal Epithelial Cells but Not in Tubuloid-Derived Cells. Frontiers in Bioengineering and Biotechnology, 2022, 10, 820930.	4.1	4
8	Tissue-engineered collagenous fibrous cap models to systematically elucidate atherosclerotic plaque rupture. Scientific Reports, 2022, 12, 5434.	3.3	8
9	In-vitro engineered human cerebral tissues mimic pathological circuit disturbances in 3D. Communications Biology, 2022, 5, 254.	4.4	4
10	Pirfenidone Has Anti-fibrotic Effects in a Tissue-Engineered Model of Human Cardiac Fibrosis. Frontiers in Cardiovascular Medicine, 2022, 9, 854314.	2.4	16
11	Cardiovascular Tissue Engineering and Regeneration: A Plead for Further Knowledge Convergence. Tissue Engineering - Part A, 2022, 28, 525-541.	3.1	6
12	Engineered patterns of Notch ligands Jag1 and Dll4 elicit differential spatial control of endothelial sprouting. IScience, 2022, 25, 104306.	4.1	10
13	Donor Heterogeneity in the Human Macrophage Response to a Biomaterial Under Hyperglycemia <i>In Vitro</i>. Tissue Engineering - Part C: Methods, 2022, 28, 440-456.	2.1	4
14	Human total, basal and activity energy expenditures are independent of ambient environmental temperature. IScience, 2022, 25, 104682.	4.1	6
15	Renal Epithelial Cell Responses to Supramolecular Thermoplastic Elastomeric Concave and Convex Structures. Advanced Materials Interfaces, 2021, 8, 2001490.	3.7	5
16	A standard calculation methodology for human doubly labeled water studies. Cell Reports Medicine, 2021, 2, 100203.	6.5	62
17	Myocardial Disease and Long-Distance Space Travel: Solving the Radiation Problem. Frontiers in Cardiovascular Medicine, 2021, 8, 631985.	2.4	28
18	Advanced<i>In Vitro</i>Modeling to Study the Paradox of Mechanically Induced Cardiac Fibrosis. Tissue Engineering - Part C: Methods, 2021, 27, 100-114.	2.1	9

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19	<i>In Vitro</i>Methods to Model Cardiac Mechanobiology in Health and Disease. Tissue Engineering - Part C: Methods, 2021, 27, 139-151.	2.1	21
20	Protein Micropatterning in 2.5D: An Approach to Investigate Cellular Responses in Multi-Cue Environments. ACS Applied Materials & Interfaces, 2021, 13, 25589-25598.	8.0	18
21	Editorial: Heart Valve Tissue Engineering: Are We Ready for Clinical Translation?. Frontiers in Cardiovascular Medicine, 2021, 8, 658719.	2.4	1
22	A Brief History in Cardiac Regeneration, and How the Extra Cellular Matrix May Turn the Tide. Frontiers in Cardiovascular Medicine, 2021, 8, 682342.	2.4	2
23	Computationally guided in-vitro vascular growth model reveals causal link between flow oscillations and disorganized neotissue. Communications Biology, 2021, 4, 546.	4.4	2
24	Radiation Induces Valvular Interstitial Cell Calcific Response in an in vitro Model of Calcific Aortic Valve Disease. Frontiers in Cardiovascular Medicine, 2021, 8, 687885.	2.4	6
25	Daily energy expenditure through the human life course. Science, 2021, 373, 808-812.	12.6	234
26	Mechanical Properties of Bioengineered Corneal Stroma. Advanced Healthcare Materials, 2021, 10, e2100972.	7.6	21
27	Bioprinting of kidney <i>in vitro</i> models: cells, biomaterials, and manufacturing techniques. Essays in Biochemistry, 2021, 65, 587-602.	4.7	23
28	Physical activity and fat-free mass during growth and in later life. American Journal of Clinical Nutrition, 2021, 114, 1583-1589.	4.7	22
29	Renal Biology Driven Macro- and Microscale Design Strategies for Creating an Artificial Proximal Tubule Using Fiber-Based Technologies. ACS Biomaterials Science and Engineering, 2021, 7, 4679-4693.	5.2	5
30	Distinct Effects of Heparin and Interleukinâ€4 Functionalization on Macrophage Polarization and In Situ Arterial Tissue Regeneration Using Resorbable Supramolecular Vascular Grafts in Rats. Advanced Healthcare Materials, 2021, 10, e2101103.	7.6	11
31	Inflammatory and regenerative processes in bioresorbable synthetic pulmonary valves up to two years in sheepâ€"Spatiotemporal insights augmented by Raman microspectroscopy. Acta Biomaterialia, 2021, 135, 243-259.	8.3	18
32	Immuno-regenerative biomaterials for in situ cardiovascular tissue engineering â€" Do patient characteristics warrant precision engineering?. Advanced Drug Delivery Reviews, 2021, 178, 113960.	13.7	29
33	Imparting Immunomodulatory Activity to Scaffolds via Biotinâ€"Avidin Interactions. ACS Biomaterials Science and Engineering, 2021, 7, 5611-5621.	5.2	5
34	Ultrastructural Characteristics of Myocardial Reperfusion Injury and Effect of Selective Intracoronary Hypothermia: An Observational Study in Isolated Beating Porcine Hearts. Therapeutic Hypothermia and Temperature Management, 2021, , .	0.9	2
35	Layer-specific cell differentiation in bi-layered vascular grafts under flow perfusion. Biofabrication, 2020, 12, 015009.	7.1	43
36	Hemodynamic loads distinctively impact the secretory profile of biomaterial-activated macrophages â€" implications for<i>in situ</i>vascular tissue engineering. Biomaterials Science, 2020, 8, 132-147.	5.4	45

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37	Fibrotic aortic valve disease after radiotherapy: an immunohistochemical study in breast cancer and lymphoma patients. Cardiovascular Pathology, 2020, 45, 107176.	1.6	13
38	Differential Leaflet Remodeling of BoneÂMarrow Cell Pre-Seeded Versus Nonseeded Bioresorbable Transcatheter Pulmonary Valve Replacements. JACC Basic To Translational Science, 2020, 5, 15-31.	4.1	32
39	Integrative Multi-Omics Analysis in Calcific Aortic Valve Disease Reveals a Link to the Formation of Amyloid-Like Deposits. Cells, 2020, 9, 2164.	4.1	15
40	Optimization of Anti-kinking Designs for Vascular Grafts Based on Supramolecular Materials. Frontiers in Materials, 2020, 7, .	2.4	14
41	Inconsistency in Graft Outcome of Bilayered Bioresorbable Supramolecular Arterial Scaffolds in Rats. Tissue Engineering - Part A, 2020, 27, 894-904.	3.1	11
42	Vascular Tissue Engineering: Pathological Considerations, Mechanisms, and Translational Implications. , 2020, , 95-134.		2
43	Impact of Additives on Mechanical Properties of Supramolecular Electrospun Scaffolds. ACS Applied Polymer Materials, 2020, 2, 3742-3748.	4.4	7
44	Annexin A1â€“dependent tethering promotes extracellular vesicle aggregation revealed with singleâ€“extracellular vesicle analysis. Science Advances, 2020, 6, .	10.3	65
45	Transcatheter-Delivered Expandable Bioresorbable Polymeric Graft With Stenting Capacity Induces Vascular Regeneration. JACC Basic To Translational Science, 2020, 5, 1095-1110.	4.1	8
46	InÂSitu Remodeling Overrules Bioinspired Scaffold Architecture of Supramolecular Elastomeric Tissue-Engineered Heart Valves. JACC Basic To Translational Science, 2020, 5, 1187-1206.	4.1	38
47	Cellular Contact Guidance Emerges from Gap Avoidance. Cell Reports Physical Science, 2020, 1, 100055.	5.6	36
48	Human In Vitro Model Mimicking Materialâ€•Driven Vascular Regeneration Reveals How Cyclic Stretch and Shear Stress Differentially Modulate Inflammation and Matrix Deposition. Advanced Biology, 2020, 4, e1900249.	3.0	23
49	Imaging the In Vivo Degradation of Tissue Engineering Implants by Use of Supramolecular Radiopaque Biomaterials. Macromolecular Bioscience, 2020, 20, e2000024.	4.1	8
50	Computational Characterization of the Dish-In-A-Dish, A High Yield Culture Platform for Endothelial Shear Stress Studies on the Orbital Shaker. Micromachines, 2020, 11, 552.	2.9	13
51	Cellular Geometry Sensing at Different Length Scales and its Implications for Scaffold Design. Materials, 2020, 13, 963.	2.9	50
52	Early cost-utility analysis of tissue-engineered heart valves compared to bioprostheses in the aortic position in elderly patients. European Journal of Health Economics, 2020, 21, 557-572.	2.8	13
53	Failure of decellularized porcine small intestinal submucosa as a heart valved conduit. Journal of Thoracic and Cardiovascular Surgery, 2020, 160, e201-e215.	0.8	33
54	Pressure-induced collagen degradation in arterial tissue as a potential mechanism for degenerative arterial disease progression. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 109, 103771.	3.1	7

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55	A Multi-Cue Bioreactor to Evaluate the Inflammatory and Regenerative Capacity of Biomaterials under Flow and Stretch. Journal of Visualized Experiments, 2020, , .	0.3	6
56	Vascular Tissue Engineering: Pathological Considerations, Mechanisms, and Translational Implications. , 2020, , 1-41.		0
57	Heart valve tissue engineering: current preclinical and clinical approaches. , 2020, , 383-398.		0
58	In vivo and in vitro Approaches Reveal Novel Insight Into the Ability of Epicardium-Derived Cells to Create Their Own Extracellular Environment. Frontiers in Cardiovascular Medicine, 2019, 6, 81.	2.4	7
59	Cellâ€Perceived Substrate Curvature Dynamically Coordinates the Direction, Speed, and Persistence of Stromal Cell Migration. Advanced Biology, 2019, 3, e1900080.	3.0	63
60	Tissue-engineered heart valves. , 2019, , 123-176.		3
61	Cell Migration: Cellâ€Perceived Substrate Curvature Dynamically Coordinates the Direction, Speed, and Persistence of Stromal Cell Migration (Adv. Biosys. 10/2019). Advanced Biology, 2019, 3, 1970102.	3.0	1
62	Vimentin regulates Notch signaling strength and arterial remodeling in response to hemodynamic stress. Scientific Reports, 2019, 9, 12415.	3.3	62
63	Functional peptide presentation on different hydrogen bonding biomaterials using supramolecular additives. Biomaterials, 2019, 224, 119466.	11.4	15
64	What Is the Potential of Tissue-Engineered Pulmonary Valves in Children?. Annals of Thoracic Surgery, 2019, 107, 1845-1853.	1.3	22
65	The degradation and performance of electrospun supramolecular vascular scaffolds examined upon in vitro enzymatic exposure. Acta Biomaterialia, 2019, 92, 48-59.	8.3	25
66	Entropic Forces Drive Cellular Contact Guidance. Biophysical Journal, 2019, 116, 1994-2008.	0.5	48
67	Macrophage-Driven Biomaterial Degradation Depends on Scaffold Microarchitecture. Frontiers in Bioengineering and Biotechnology, 2019, 7, 87.	4.1	89
68	Anti-fibrotic Effects of Cardiac Progenitor Cells in a 3D-Model of Human Cardiac Fibrosis. Frontiers in Cardiovascular Medicine, 2019, 6, 52.	2.4	27
69	Increased Cell Traction-Induced Prestress in Dynamically Cultured Microtissues. Frontiers in Bioengineering and Biotechnology, 2019, 7, 41.	4.1	8
70	Triple-marker cardiac MRI detects sequential tissue changes of healing myocardium after a hydrogel-based therapy. Scientific Reports, 2019, 9, 19366.	3.3	7
71	Cyclic Strain Affects Macrophage Cytokine Secretion and Extracellular Matrix Turnover in Electrospun Scaffolds. Tissue Engineering - Part A, 2019, 25, 1310-1325.	3.1	25
72	Tissue engineering meets immunoengineering: Prospective on personalized in situ tissue engineering strategies. Current Opinion in Biomedical Engineering, 2018, 6, 17-26.	3.4	41

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73	Modulation of macrophage phenotype and protein secretion via heparin-IL-4 functionalized supramolecular elastomers. Acta Biomaterialia, 2018, 71, 247-260.	8.3	65
74	Mechanosensitivity of Jaggedâ€"Notch signaling can induce a switch-type behavior in vascular homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3682-E3691.	7.1	51
75	The Mechanical Contribution of Vimentin to Cellular Stress Generation. Journal of Biomechanical Engineering, 2018, 140, .	1.3	7
76	Mechanobiology of the cellâ€"matrix interplay: Catching a glimpse of complexity via minimalistic models. Extreme Mechanics Letters, 2018, 20, 59-64.	4.1	14
77	Growth and remodeling play opposing roles during postnatal human heart valve development. Scientific Reports, 2018, 8, 1235.	3.3	18
78	Intrinsic Cell Stress is Independent of Organization in Engineered Cell Sheets. Cardiovascular Engineering and Technology, 2018, 9, 181-192.	1.6	10
79	P142Anti-fibrotic effects of cardiac progenitor cells in a 3D-model of human cardiac fibrosis. Cardiovascular Research, 2018, 114, S37-S37.	3.8	0
80	Shear stress induces expression, intracellular reorganization and enhanced Notch activation potential of Jagged1. Integrative Biology (United Kingdom), 2018, 10, 719-726.	1.3	23
81	Initial scaffold thickness affects the emergence of a geometrical and mechanical equilibrium in engineered cardiovascular tissues. Journal of the Royal Society Interface, 2018, 15, 20180359.	3.4	8
82	Predicting and understanding collagen remodeling in human native heart valves during early development. Acta Biomaterialia, 2018, 80, 203-216.	8.3	5
83	Microfabricated tuneable and transferable porous PDMS membranes for Organs-on-Chips. Scientific Reports, 2018, 8, 13524.	3.3	58
84	A novel method to transfer porous PDMS membranes for high throughput Organ-on-Chip and Lab-on-Chip assembly. , 2018, , .		1
85	A biomimetic microfluidic model to study signalling between endothelial and vascular smooth muscle cells under hemodynamic conditions. Lab on A Chip, 2018, 18, 1607-1620.	6.0	88
86	Dual Electrospun Supramolecular Polymer Systems for Selective Cell Migration. Macromolecular Bioscience, 2018, 18, e1800004.	4.1	2
87	Strain mediated enzymatic degradation of arterial tissue: Insights into the role of the non-collagenous tissue matrix and collagen crimp. Acta Biomaterialia, 2018, 77, 301-310.	8.3	17
88	Can We Grow Valves Inside the Heart? Perspective on Material-based In Situ Heart Valve Tissue Engineering. Frontiers in Cardiovascular Medicine, 2018, 5, 54.	2.4	45
89	Engineering a 3D-Bioprinted Model of Human Heart Valve Disease Using Nanoindentation-Based Biomechanics. Nanomaterials, 2018, 8, 296.	4.1	81
90	Spatial patterning of the Notch ligand Dll4 controls endothelial sprouting in vitro. Scientific Reports, 2018, 8, 6392.	3.3	14

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91	The Future of Tissue Engineering. Current Opinion in Biomedical Engineering, 2018, 6, iii-v.	3.4	2
92	Host Response and Neo-Tissue Development during Resorption of a Fast Degrading Supramolecular Electrospun Arterial Scaffold. Bioengineering, 2018, 5, 61.	3.5	24
93	Mesoscale substrate curvature overrules nanoscale contact guidance to direct bone marrow stromal cell migration. Journal of the Royal Society Interface, 2018, 15, 20180162.	3.4	53
94	Modelling The Combined Effects Of Collagen and Cyclic Strain On Cellular Orientation In Collagenous Tissues. Scientific Reports, 2018, 8, 8518.	3.3	20
95	An automated quantitative analysis of cell, nucleus and focal adhesion morphology. PLoS ONE, 2018, 13, e0195201.	2.5	23
96	Decoupling the Effect of Shear Stress and Stretch on Tissue Growth and Remodeling in a Vascular Graft. Tissue Engineering - Part C: Methods, 2018, 24, 418-429.	2.1	48
97	Cellular strain avoidance is mediated by a functional actin cap; observations in an LMNA-deficient cell model. Journal of Cell Science, 2017, 130, 779-790.	2.0	9
98	In situ heart valve tissue engineering using a bioresorbable elastomeric implant â€“ From material design to 12 months follow-up in sheep. Biomaterials, 2017, 125, 101-117.	11.4	231
99	A Bioreactor to Identify the Driving Mechanical Stimuli of Tissue Growth and Remodeling. Tissue Engineering - Part C: Methods, 2017, 23, 377-387.	2.1	14
100	Biomaterial-driven in situ cardiovascular tissue engineeringâ€"a multi-disciplinary perspective. Npj Regenerative Medicine, 2017, 2, 18.	5.2	181
101	Selective regulation of Notch ligands during angiogenesis is mediated by vimentin. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4574-E4581.	7.1	86
102	Supramolecular surface functionalization via catechols for the improvement of cellâ€“material interactions. Biomaterials Science, 2017, 5, 1541-1548.	5.4	18
103	Robust Generation of Quiescent Porcine Valvular Interstitial Cell Cultures. Journal of the American Heart Association, 2017, 6, .	3.7	36
104	Aortic calcified particles modulate valvular endothelial and interstitial cells. Cardiovascular Pathology, 2017, 28, 36-45.	1.6	13
105	The Effects of Scaffold Remnants in Decellularized Tissue-Engineered Cardiovascular Constructs on the Recruitment of Blood Cells<sup />. Tissue Engineering - Part A, 2017, 23, 1142-1151.	3.1	11
106	Spheroid three-dimensional culture enhances Notch signaling in cardiac progenitor cells. MRS Communications, 2017, 7, 496-501.	1.8	6
107	Lmna knockout mouse embryonic fibroblasts are less contractile than their wild-type counterparts. Integrative Biology (United Kingdom), 2017, 9, 709-721.	1.3	9
108	Mechanically Robust Electrospun Hydrogel Scaffolds Crosslinked via Supramolecular Interactions. Macromolecular Bioscience, 2017, 17, 1700053.	4.1	14

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109	Current Challenges in Translating Tissue-Engineered Heart Valves. Current Treatment Options in Cardiovascular Medicine, 2017, 19, 71.	0.9	27
110	From molecular design to 3D printed life-like materials with unprecedented properties. Current Opinion in Biomedical Engineering, 2017, 2, 43-48.	3.4	13
111	Nondestructive mechanical characterization of developing biological tissues using inflation testing. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 438-447.	3.1	7
112	Mimicking Cardiac Fibrosis in a Dish: Fibroblast Density Rather than Collagen Density Weakens Cardiomyocyte Function. Journal of Cardiovascular Translational Research, 2017, 10, 116-127.	2.4	38
113	Vascular Mechanobiology: Towards Control of In Situ Regeneration. Cells, 2017, 6, 19.	4.1	42
114	Cardiac Progenitor Cells and the Interplay with Their Microenvironment. Stem Cells International, 2017, 2017, 1-20.	2.5	39
115	Conceptual model for early health technology assessment of current and novel heart valve interventions. Open Heart, 2016, 3, e000500.	2.3	20
116	Collagen Matrix Remodeling in Stented Pulmonary Arteries after Transapical Heart Valve Replacement. Cells Tissues Organs, 2016, 201, 159-169.	2.3	18
117	Modulation of collagen fiber orientation by strain-controlled enzymatic degradation. Acta Biomaterialia, 2016, 35, 118-126.	8.3	35
118	Early in-situ cellularization of a supramolecular vascular graft is modified by synthetic stromal cell-derived factor-1Î± derived peptides. Biomaterials, 2016, 76, 187-195.	11.4	95
119	Cardiomyocyte progenitor cell mechanoresponse unrevealed: strain avoidance and mechanosome development. Integrative Biology (United Kingdom), 2016, 8, 991-1001.	1.3	21
120	Development of Nonâ€•Cell Adhesive Vascular Grafts Using Supramolecular Building Blocks. Macromolecular Bioscience, 2016, 16, 350-362.	4.1	47
121	Heading in the Right Direction: Understanding Cellular Orientation Responses to Complex Biophysical Environments. Cellular and Molecular Bioengineering, 2016, 9, 12-37.	2.1	71
122	Genesis and growth of extracellular-vesicle-derived microcalcification inÂatherosclerotic plaques. Nature Materials, 2016, 15, 335-343.	27.5	298
123	Superior Tissue Evolution in Slow-Degrading Scaffolds for Valvular Tissue Engineering. Tissue Engineering - Part A, 2016, 22, 123-132.	3.1	19
124	A membrane-based microfluidic device for mechano-chemical cell manipulation. Biomedical Microdevices, 2016, 18, 31.	2.8	11
125	Discoidin Domain Receptor-1 Regulates Calcific Extracellular Vesicle Release in Vascular Smooth Muscle Cell Fibrocalcific Response via Transforming Growth Factor-Î² Signaling. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 525-533.	2.4	58
126	Age-dependent changes of stress and strain in the human heart valve and their relation with collagen remodeling. Acta Biomaterialia, 2016, 29, 161-169.	8.3	47

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127	Age-Dependent Changes in Geometry, Tissue Composition and Mechanical Properties of Fetal to Adult Cryopreserved Human Heart Valves. PLoS ONE, 2016, 11, e0149020.	2.5	48
128	Development Of A Conceptual Model For Early Health Technology Assessment Of Tissue-Engineered Heart Valves. Value in Health, 2015, 18, A394.	0.3	0
129	Competition between cap and basal actin fiber orientation in cells subjected to contact guidance and cyclic strain. Scientific Reports, 2015, 5, 8752.	3.3	31
130	<i>In Vivo</i> Collagen Remodeling in the Vascular Wall of Decellularized Stented Tissue-Engineered Heart Valves. Tissue Engineering - Part A, 2015, 21, 2206-2215.	3.1	33
131	High-Throughput Screening Assay for the Identification of Compounds Enhancing Collagenous Extracellular Matrix Production by ATDC5 Cells. Tissue Engineering - Part C: Methods, 2015, 21, 726-736.	2.1	12
132	Modeling the impact of scaffold architecture and mechanical loading on collagen turnover in engineered cardiovascular tissues. Biomechanics and Modeling in Mechanobiology, 2015, 14, 603-613.	2.8	5
133	The Evolution of Collagen Fiber Orientation in Engineered Cardiovascular Tissues Visualized by Diffusion Tensor Imaging. PLoS ONE, 2015, 10, e0127847.	2.5	33
134	<i>In Situ</i> Tissue Engineering of Functional Small-Diameter Blood Vessels by Host Circulating Cells Only. Tissue Engineering - Part A, 2015, 21, 2583-2594.	3.1	92
135	Hydrolytic and oxidative degradation of electrospun supramolecular biomaterials: In vitro degradation pathways. Acta Biomaterialia, 2015, 27, 21-31.	8.3	68
136	Behavior of CMPCs in unidirectional constrained and stress-free 3D hydrogels. Journal of Molecular and Cellular Cardiology, 2015, 87, 79-91.	1.9	24
137	Cardiac patching and the regeneration of infarcted myocardium: where do we go from here?. Future Cardiology, 2014, 10, 167-170.	1.2	0
138	Extracellular Vesicles: Potential Roles in Regenerative Medicine. Frontiers in Immunology, 2014, 5, 608.	4.8	263
139	Computational model predicts cell orientation in response to a range of mechanical stimuli. Biomechanics and Modeling in Mechanobiology, 2014, 13, 227-236.	2.8	54
140	Computational and experimental investigation of local stress fiber orientation in uniaxially and biaxially constrained microtissues. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1053-1063.	2.8	12
141	Degree of Scaffold Degradation Influences Collagen (re)Orientation in Engineered Tissues. Tissue Engineering - Part A, 2014, 20, 1747-1757.	3.1	21
142	How to Make a Heart Valve: From Embryonic Development to Bioengineering of Living Valve Substitutes. Cold Spring Harbor Perspectives in Medicine, 2014, 4, a013912-a013912.	6.2	63
143	Differential Response of Endothelial and Endothelial Colony Forming Cells on Electrospun Scaffolds with Distinct Microfiber Diameters. Biomacromolecules, 2014, 15, 821-829.	5.4	49
144	The influence of matrix (an)isotropy on cardiomyocyte contraction in engineered cardiac microtissues. Integrative Biology (United Kingdom), 2014, 6, 422-429.	1.3	44

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145	Combining tissue repair and tissue engineering; bioactivating implantable cell-free vascular scaffolds. Heart, 2014, 100, 1825-1830.	2.9	39
146	Synergistic protein secretion by mesenchymal stromal cells seeded in 3D scaffolds and circulating leukocytes in physiological flow. Biomaterials, 2014, 35, 9100-9113.	11.4	36
147	Mechanics of the pulmonary valve in the aortic position. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 557-567.	3.1	14
148	Strain-dependent modulation of macrophage polarization within scaffolds. Biomaterials, 2014, 35, 4919-4928.	11.4	150
149	Shear flow affects selective monocyte recruitment into <scp>MCP</scp>â€1â€loaded scaffolds. Journal of Cellular and Molecular Medicine, 2014, 18, 2176-2188.	3.6	35
150	Monocytic Cells Become Less Compressible but More Deformable upon Activation. PLoS ONE, 2014, 9, e92814.	2.5	17
151	Colorful Protein-Based Fluorescent Probes for Collagen Imaging. PLoS ONE, 2014, 9, e114983.	2.5	86
152	Material-Based Engineering Strategies for Cardiac Regeneration. Current Pharmaceutical Design, 2014, 20, 2057-2068.	1.9	9
153	Understanding strain-induced collagen matrix development in engineered cardiovascular tissues from gene expression profiles. Cell and Tissue Research, 2013, 352, 727-737.	2.9	16
154	Mechanical analysis of ovine and pediatric pulmonary artery for heart valve stent design. Journal of Biomechanics, 2013, 46, 2075-2081.	2.1	16
155	Strain-induced Collagen Organization at the Micro-level in Fibrin-based Engineered Tissue Constructs. Annals of Biomedical Engineering, 2013, 41, 763-774.	2.5	50
156	Developing Engineered Cardiac Tissue Models from HL-1 Cardiomyocytes and Mouse Embryonic Fibroblasts. , 2013, , .		0
157	Then and now: hypes and hopes of regenerative medicine. Trends in Biotechnology, 2013, 31, 121-123.	9.3	10
158	Engineering Fibrin-based Tissue Constructs from Myofibroblasts and Application of Constraints and Strain to Induce Cell and Collagen Reorganization. Journal of Visualized Experiments, 2013, , e51009.	0.3	1
159	Soft substrates normalize nuclear morphology and prevent nuclear rupture in fibroblasts from a laminopathy patient with compound heterozygous LMNA mutations. Nucleus, 2013, 4, 61-73.	2.2	58
160	Computational Modeling of Cell Orientation in 3D Micro-Constructs. , 2013, , .		0
161	Engineering Skeletal Muscle Tissues from Murine Myoblast Progenitor Cells and Application of Electrical Stimulation. Journal of Visualized Experiments, 2013, , e4267.	0.3	23
162	Increased Cardiac Myocyte PDE5 Levels in Human and Murine Pressure Overload Hypertrophy Contribute to Adverse LV Remodeling. PLoS ONE, 2013, 8, e58841.	2.5	25

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163	Matrix Production and Organization by Endothelial Colony Forming Cells in Mechanically Strained Engineered Tissue Constructs. PLoS ONE, 2013, 8, e73161.	2.5	14
164	Engineered Microtissues for Real-Time Characterization of Cardiomyocyte Function. , 2013, , .		0
165	Influence of Strain and Contact Guidance on Collagen Organization in Engineered Cardiovascular Tissues: Implications for In Situ Tissue Engineering. , 2013, , .		0
166	A Mesofluidics-Based Test Platform for Systematic Development of Scaffolds for<i>In Situ</i>Cardiovascular Tissue Engineering. Tissue Engineering - Part C: Methods, 2012, 18, 475-485.	2.1	20
167	Variation in tissue outcome of ovine and human engineered heart valve constructs: relevance for tissue engineering. Regenerative Medicine, 2012, 7, 59-70.	1.7	20
168	Low Oxygen Concentrations Impair Tissue Development in Tissue-Engineered Cardiovascular Constructs. Tissue Engineering - Part A, 2012, 18, 221-231.	3.1	8
169	Matrix production and remodeling capacity of cardiomyocyte progenitor cells during in vitro differentiation. Journal of Molecular and Cellular Cardiology, 2012, 53, 497-508.	1.9	45
170	Influence of substrate stiffness on circulating progenitor cell fate. Journal of Biomechanics, 2012, 45, 736-744.	2.1	34
171	In situheart valve tissue engineering: simple devices, smart materials, complex knowledge. Expert Review of Medical Devices, 2012, 9, 453-455.	2.8	34
172	A comparative analysis of the collagen architecture in the carotid artery: Second harmonic generation versus diffusion tensor imaging. Biochemical and Biophysical Research Communications, 2012, 426, 54-58.	2.1	47
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