

Frank P T Baaijens

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146
papers

7,262
citations

47
h-index

79
g-index

180
ext. papers

8,093
ext. citations

4.9
avg, IF

5.84
L-index

#	Paper	IF	Citations
146	Decreased mechanical stiffness in LMNA-/- cells is caused by defective nucleo-cytoskeletal integrity: implications for the development of laminopathies. <i>Human Molecular Genetics</i> , 2004 , 13, 2567-80	5.6	274
145	Fibrin as a cell carrier in cardiovascular tissue engineering applications. <i>Biomaterials</i> , 2005 , 26, 3113-21	15.6	207
144	Substrates for cardiovascular tissue engineering. <i>Advanced Drug Delivery Reviews</i> , 2011 , 63, 221-41	18.5	206
143	Minimally-invasive implantation of living tissue engineered heart valves: a comprehensive approach from autologous vascular cells to stem cells. <i>Journal of the American College of Cardiology</i> , 2010 , 56, 510-20	15.1	183
142	Determination of the Poisson's ratio of the cell: recovery properties of chondrocytes after release from complete micropipette aspiration. <i>Journal of Biomechanics</i> , 2006 , 39, 78-87	2.9	176
141	Tissue engineering of human heart valve leaflets: a novel bioreactor for a strain-based conditioning approach. <i>Annals of Biomedical Engineering</i> , 2005 , 33, 1778-88	4.7	168
140	In situ heart valve tissue engineering using a bioresorbable elastomeric implant - From material design to 12 months follow-up in sheep. <i>Biomaterials</i> , 2017 , 125, 101-117	15.6	161
139	Biomechanics and mechanobiology in functional tissue engineering. <i>Journal of Biomechanics</i> , 2014 , 47, 1933-40	2.9	157
138	Off-the-shelf human decellularized tissue-engineered heart valves in a non-human primate model. <i>Biomaterials</i> , 2013 , 34, 7269-80	15.6	151
137	The role of collagen cross-links in biomechanical behavior of human aortic heart valve leaflets--relevance for tissue engineering. <i>Tissue Engineering</i> , 2007 , 13, 1501-11		144
136	Transcatheter implantation of homologous "off-the-shelf" tissue-engineered heart valves with self-repair capacity: long-term functionality and rapid in vivo remodeling in sheep. <i>Journal of the American College of Cardiology</i> , 2014 , 63, 1320-1329	15.1	142
135	Tailoring fiber diameter in electrospun poly(epsilon-caprolactone) scaffolds for optimal cellular infiltration in cardiovascular tissue engineering. <i>Tissue Engineering - Part A</i> , 2009 , 15, 437-44	3.9	142
134	Linear viscoelastic behavior of subcutaneous adipose tissue. <i>Biorheology</i> , 2008 , 45, 677-688	1.7	136
133	Decellularized homologous tissue-engineered heart valves as off-the-shelf alternatives to xenografts. <i>Biomaterials</i> , 2012 , 33, 4545-54	15.6	126
132	In vitro indentation to determine the mechanical properties of epidermis. <i>Journal of Biomechanics</i> , 2011 , 44, 1176-81	2.9	124
131	The relative contributions of compression and hypoxia to development of muscle tissue damage: an in vitro study. <i>Annals of Biomedical Engineering</i> , 2007 , 35, 273-84	4.7	123
130	Strain-dependent modulation of macrophage polarization within scaffolds. <i>Biomaterials</i> , 2014 , 35, 4919-26	15.6	122

129	Autologous human tissue-engineered heart valves: prospects for systemic application. <i>Circulation</i> , 2006 , 114, 1152-8	16.7	119
128	Tissue engineering of heart valves: advances and current challenges. <i>Expert Review of Medical Devices</i> , 2009 , 6, 259-75	3.5	114
127	Pressure induced deep tissue injury explained. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 297-305	4.7	109
126	A structural constitutive model for collagenous cardiovascular tissues incorporating the angular fiber distribution. <i>Journal of Biomechanical Engineering</i> , 2005 , 127, 494-503	2.1	104
125	Advanced maturation by electrical stimulation: Differences in response between C2C12 and primary muscle progenitor cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2011 , 5, 529-39	4.4	101
124	Remodelling of the angular collagen fiber distribution in cardiovascular tissues. <i>Biomechanics and Modeling in Mechanobiology</i> , 2008 , 7, 93-103	3.8	96
123	Computational modeling guides tissue-engineered heart valve design for long-term in vivo performance in a translational sheep model. <i>Science Translational Medicine</i> , 2018 , 10,	17.5	83
122	Computational analyses of mechanically induced collagen fiber remodeling in the aortic heart valve. <i>Journal of Biomechanical Engineering</i> , 2003 , 125, 549-57	2.1	83
121	Temporal differences in the influence of ischemic factors and deformation on the metabolism of engineered skeletal muscle. <i>Journal of Applied Physiology</i> , 2007 , 103, 464-73	3.7	82
120	Large deformation finite element analysis of micropipette aspiration to determine the mechanical properties of the chondrocyte. <i>Annals of Biomedical Engineering</i> , 2005 , 33, 494-501	4.7	81
119	Dynamic straining combined with fibrin gel cell seeding improves strength of tissue-engineered small-diameter vascular grafts. <i>Tissue Engineering - Part A</i> , 2009 , 15, 1081-9	3.9	80
118	In Situ Tissue Engineering of Functional Small-Diameter Blood Vessels by Host Circulating Cells Only. <i>Tissue Engineering - Part A</i> , 2015 , 21, 2583-94	3.9	74
117	Thermoplastic Elastomers Based on Strong and Well-Defined Hydrogen-Bonding Interactions. <i>Macromolecules</i> , 2008 , 41, 5703-5708	5.5	73
116	Modeling the mechanics of tissue-engineered human heart valve leaflets. <i>Journal of Biomechanics</i> , 2007 , 40, 325-34	2.9	73
115	Emerging trends in heart valve engineering: Part I. Solutions for future. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 833-43	4.7	70
114	The influence of matrix integrity on stress-fiber remodeling in 3D. <i>Biomaterials</i> , 2012 , 33, 7508-18	15.6	69
113	Meet the new meat: tissue engineered skeletal muscle. <i>Trends in Food Science and Technology</i> , 2010 , 21, 59-66	15.3	68
112	Effects of a combined mechanical stimulation protocol: Value for skeletal muscle tissue engineering. <i>Journal of Biomechanics</i> , 2010 , 43, 1514-21	2.9	68

111	Improved prediction of the collagen fiber architecture in the aortic heart valve. <i>Journal of Biomechanical Engineering</i> , 2005 , 127, 329-36	2.1	68
110	Osmoviscoelastic finite element model of the intervertebral disc. <i>European Spine Journal</i> , 2006 , 15 Suppl 3, S361-71	2.7	67
109	Modeling collagen remodeling. <i>Journal of Biomechanics</i> , 2010 , 43, 166-75	2.9	66
108	Local axial compressive mechanical properties of human carotid atherosclerotic plaques-characterisation by indentation test and inverse finite element analysis. <i>Journal of Biomechanics</i> , 2013 , 46, 1759-66	2.9	64
107	An integrated finite-element approach to mechanics, transport and biosynthesis in tissue engineering. <i>Journal of Biomechanical Engineering</i> , 2004 , 126, 82-91	2.1	63
106	Effect of strain magnitude on the tissue properties of engineered cardiovascular constructs. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 244-53	4.7	58
105	Quantification of the temporal evolution of collagen orientation in mechanically conditioned engineered cardiovascular tissues. <i>Annals of Biomedical Engineering</i> , 2009 , 37, 1263-72	4.7	56
104	Mechanical characterization of anisotropic planar biological soft tissues using finite indentation: experimental feasibility. <i>Journal of Biomechanics</i> , 2008 , 41, 422-9	2.9	55
103	Heading in the Right Direction: Understanding Cellular Orientation Responses to Complex Biophysical Environments. <i>Cellular and Molecular Bioengineering</i> , 2016 , 9, 12-37	3.9	51
102	How to make a heart valve: from embryonic development to bioengineering of living valve substitutes. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2014 , 4, a013912	5.4	49
101	Intermittent straining accelerates the development of tissue properties in engineered heart valve tissue. <i>Tissue Engineering - Part A</i> , 2009 , 15, 999-1008	3.9	49
100	Hydrolytic and oxidative degradation of electrospun supramolecular biomaterials: In vitro degradation pathways. <i>Acta Biomaterialia</i> , 2015 , 27, 21-31	10.8	48
99	Computationally Designed 3D Printed Self-Expandable Polymer Stents with Biodegradation Capacity for Minimally Invasive Heart Valve Implantation: A Proof-of-Concept Study. <i>3D Printing and Additive Manufacturing</i> , 2017 , 4, 19-29	4	46
98	Mechanoregulation of vascularization in aligned tissue-engineered muscle: a role for vascular endothelial growth factor. <i>Tissue Engineering - Part A</i> , 2011 , 17, 2857-65	3.9	46
97	Linear shear response of the upper skin layers. <i>Biorheology</i> , 2011 , 48, 229-45	1.7	45
96	Compressive mechanical properties of atherosclerotic plaques--indentation test to characterise the local anisotropic behaviour. <i>Journal of Biomechanics</i> , 2014 , 47, 784-92	2.9	43
95	Computational model predicts cell orientation in response to a range of mechanical stimuli. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 227-36	3.8	43
94	Polymer-based scaffold designs for in situ vascular tissue engineering: controlling recruitment and differentiation behavior of endothelial colony forming cells. <i>Macromolecular Bioscience</i> , 2012 , 12, 577-90 ^{5.5}	5.5	43

93	Next-generation tissue-engineered heart valves with repair, remodelling and regeneration capacity. <i>Nature Reviews Cardiology</i> , 2021 , 18, 92-116	14.8	43
92	Soft substrates normalize nuclear morphology and prevent nuclear rupture in fibroblasts from a laminopathy patient with compound heterozygous LMNA mutations. <i>Nucleus</i> , 2013 , 4, 61-73	3.9	42
91	The influence of serum-free culture conditions on skeletal muscle differentiation in a tissue-engineered model. <i>Tissue Engineering - Part A</i> , 2008 , 14, 161-71	3.9	42
90	Hypoxia induces near-native mechanical properties in engineered heart valve tissue. <i>Circulation</i> , 2009 , 119, 290-7	16.7	40
89	Improved Geometry of Decellularized Tissue Engineered Heart Valves to Prevent Leaflet Retraction. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 1061-71	4.7	39
88	Age-dependent changes of stress and strain in the human heart valve and their relation with collagen remodeling. <i>Acta Biomaterialia</i> , 2016 , 29, 161-169	10.8	39
87	Stress related collagen ultrastructure in human aortic valves--implications for tissue engineering. <i>Journal of Biomechanics</i> , 2008 , 41, 2612-7	2.9	39
86	Emerging trends in heart valve engineering: Part II. Novel and standard technologies for aortic valve replacement. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 844-57	4.7	38
85	Differential response of endothelial and endothelial colony forming cells on electrospun scaffolds with distinct microfiber diameters. <i>Biomacromolecules</i> , 2014 , 15, 821-9	6.9	38
84	Strain-induced collagen organization at the micro-level in fibrin-based engineered tissue constructs. <i>Annals of Biomedical Engineering</i> , 2013 , 41, 763-74	4.7	38
83	Influence of osmotic pressure changes on the opening of existing cracks in 2 intervertebral disc models. <i>Spine</i> , 2006 , 31, 1783-8	3.3	38
82	A computational analysis of cell-mediated compaction and collagen remodeling in tissue-engineered heart valves. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 58, 173-187	4.1	37
81	Cytokine and chemokine release upon prolonged mechanical loading of the epidermis. <i>Experimental Dermatology</i> , 2007 , 16, 567-73	4	37
80	Finite element model of mechanically induced collagen fiber synthesis and degradation in the aortic valve. <i>Annals of Biomedical Engineering</i> , 2003 , 31, 1040-53	4.7	37
79	A comparative analysis of the collagen architecture in the carotid artery: second harmonic generation versus diffusion tensor imaging. <i>Biochemical and Biophysical Research Communications</i> , 2012 , 426, 54-8	3.4	36
78	Monitoring local cell viability in engineered tissues: a fast, quantitative, and nondestructive approach. <i>Tissue Engineering</i> , 2003 , 9, 269-81		35
77	A physically motivated constitutive model for cell-mediated compaction and collagen remodeling in soft tissues. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 985-1001	3.8	34
76	Does subcutaneous adipose tissue behave as an (anti-)thixotropic material?. <i>Journal of Biomechanics</i> , 2010 , 43, 1153-9	2.9	34

75	Synergistic protein secretion by mesenchymal stromal cells seeded in 3D scaffolds and circulating leukocytes in physiological flow. <i>Biomaterials</i> , 2014 , 35, 9100-13	15.6	33
74	Tissue-engineered heart valves develop native-like collagen fiber architecture. <i>Tissue Engineering - Part A</i> , 2010 , 16, 1527-37	3.9	33
73	Understanding the requirements of self-expandable stents for heart valve replacement: Radial force, hoop force and equilibrium. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 68, 252-264	4.1	32
72	Tailoring the void space and mechanical properties in electrospun scaffolds towards physiological ranges. <i>Journal of Materials Chemistry B</i> , 2014 , 2, 305-313	7.3	32
71	An in vitro model system to quantify stress generation, compaction, and retraction in engineered heart valve tissue. <i>Tissue Engineering - Part C: Methods</i> , 2011 , 17, 983-91	2.9	32
70	Age-Dependent Changes in Geometry, Tissue Composition and Mechanical Properties of Fetal to Adult Cryopreserved Human Heart Valves. <i>PLoS ONE</i> , 2016 , 11, e0149020	3.7	32
69	Shear flow affects selective monocyte recruitment into MCP-1-loaded scaffolds. <i>Journal of Cellular and Molecular Medicine</i> , 2014 , 18, 2176-88	5.6	31
68	Influence of substrate stiffness on circulating progenitor cell fate. <i>Journal of Biomechanics</i> , 2012 , 45, 736-44	2.9	31
67	A theoretical analysis of damage evolution in skeletal muscle tissue with reference to pressure ulcer development. <i>Journal of Biomechanical Engineering</i> , 2003 , 125, 902-9	2.1	31
66	In vitro models to study compressive strain-induced muscle cell damage. <i>Biorheology</i> , 2003 , 40, 383-8	1.7	31
65	Emerging Trends in Heart Valve Engineering: Part IV. Computational Modeling and Experimental Studies. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 2314-33	4.7	30
64	Can We Grow Valves Inside the Heart? Perspective on Material-based In Situ Heart Valve Tissue Engineering. <i>Frontiers in Cardiovascular Medicine</i> , 2018 , 5, 54	5.4	30
63	In Vivo Collagen Remodeling in the Vascular Wall of Decellularized Stented Tissue-Engineered Heart Valves. <i>Tissue Engineering - Part A</i> , 2015 , 21, 2206-15	3.9	30
62	Are disc pressure, stress, and osmolarity affected by intra- and extrafibrillar fluid exchange?. <i>Journal of Orthopaedic Research</i> , 2007 , 25, 1317-24	3.8	30
61	Mechanical characterization of anisotropic planar biological soft tissues using large indentation: a computational feasibility study. <i>Journal of Biomechanical Engineering</i> , 2006 , 128, 428-36	2.1	30
60	Modulation of collagen fiber orientation by strain-controlled enzymatic degradation. <i>Acta Biomaterialia</i> , 2016 , 35, 118-26	10.8	30
59	Effect of biomimetic conditions on mechanical and structural integrity of PGA/P4HB and electrospun PCL scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2008 , 19, 1137-44	4.5	29
58	Emerging trends in heart valve engineering: Part III. Novel technologies for mitral valve repair and replacement. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 858-70	4.7	28

57	Passive and active contributions to generated force and retraction in heart valve tissue engineering. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012 , 11, 1015-27	3.8	28
56	The evolution of collagen fiber orientation in engineered cardiovascular tissues visualized by diffusion tensor imaging. <i>PLoS ONE</i> , 2015 , 10, e0127847	3.7	26
55	Evaluation of a continuous quantification method of apoptosis and necrosis in tissue cultures. <i>Cytotechnology</i> , 2004 , 46, 139-50	2.2	25
54	Synergy between Rho signaling and matrix density in cyclic stretch-induced stress fiber organization. <i>Acta Biomaterialia</i> , 2014 , 10, 1876-85	10.8	24
53	Controlling matrix formation and cross-linking by hypoxia in cardiovascular tissue engineering. <i>Journal of Applied Physiology</i> , 2010 , 109, 1483-91	3.7	24
52	The transport profile of cytokines in epidermal equivalents subjected to mechanical loading. <i>Annals of Biomedical Engineering</i> , 2009 , 37, 1007-18	4.7	22
51	Competition between cap and basal actin fiber orientation in cells subjected to contact guidance and cyclic strain. <i>Scientific Reports</i> , 2015 , 5, 8752	4.9	21
50	Percutaneous pulmonary valve replacement using completely tissue-engineered off-the-shelf heart valves: six-month in vivo functionality and matrix remodelling in sheep. <i>EuroIntervention</i> , 2016 , 12, 62-70 ^{3,1}		21
49	Trans-apical versus surgical implantation of autologous ovine tissue-engineered heart valves. <i>Journal of Heart Valve Disease</i> , 2012 , 21, 670-8		21
48	A microstructurally motivated model of the mechanical behavior of tissue engineered blood vessels. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 1782-92	4.7	20
47	3D Fiber Orientation in Atherosclerotic Carotid Plaques. <i>Journal of Structural Biology</i> , 2017 , 200, 28-35	3.4	19
46	Variation in tissue outcome of ovine and human engineered heart valve constructs: relevance for tissue engineering. <i>Regenerative Medicine</i> , 2012 , 7, 59-70	2.5	19
45	An in vitro model system to study the damaging effects of prolonged mechanical loading of the epidermis. <i>Annals of Biomedical Engineering</i> , 2006 , 34, 506-14	4.7	19
44	Degree of scaffold degradation influences collagen (re)orientation in engineered tissues. <i>Tissue Engineering - Part A</i> , 2014 , 20, 1747-57	3.9	18
43	Straining mode-dependent collagen remodeling in engineered cardiovascular tissue. <i>Tissue Engineering - Part A</i> , 2009 , 15, 841-9	3.9	18
42	A mesofluidics-based test platform for systematic development of scaffolds for in situ cardiovascular tissue engineering. <i>Tissue Engineering - Part C: Methods</i> , 2012 , 18, 475-85	2.9	18
41	Engineering skeletal muscle tissues from murine myoblast progenitor cells and application of electrical stimulation. <i>Journal of Visualized Experiments</i> , 2013 , e4267	1.6	17
40	Diffusion measurements in epidermal tissues with fluorescent recovery after photobleaching. <i>Skin Research and Technology</i> , 2008 , 14, 462-7	1.9	17

39	Diffusion profile of macromolecules within and between human skin layers for (trans)dermal drug delivery. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015 , 50, 215-22	4.1	16
38	Deformation-controlled load application in heart valve tissue engineering. <i>Tissue Engineering - Part C: Methods</i> , 2009 , 15, 707-16	2.9	16
37	Nondestructive and noninvasive assessment of mechanical properties in heart valve tissue engineering. <i>Tissue Engineering - Part A</i> , 2009 , 15, 797-806	3.9	16
36	The influence of endothelial cells on the ECM composition of 3D engineered cardiovascular constructs. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2009 , 3, 11-8	4.4	16
35	The non-linear mechanical properties of soft engineered biological tissues determined by finite spherical indentation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2008 , 11, 585-92	2.1	16
34	Collagen Matrix Remodeling in Stented Pulmonary Arteries after Transapical Heart Valve Replacement. <i>Cells Tissues Organs</i> , 2016 , 201, 159-69	2.1	16
33	First percutaneous implantation of a completely tissue-engineered self-expanding pulmonary heart valve prosthesis using a newly developed delivery system: a feasibility study in sheep. <i>Cardiovascular Intervention and Therapeutics</i> , 2017 , 32, 36-47	2.5	15
32	Local anisotropic mechanical properties of human carotid atherosclerotic plaques - characterisation by micro-indentation and inverse finite element analysis. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015 , 43, 59-68	4.1	15
31	Mechanisms that play a role in the maintenance of the calcium gradient in the epidermis. <i>Skin Research and Technology</i> , 2007 , 13, 369-76	1.9	15
30	Cell-mediated retraction versus hemodynamic loading - A delicate balance in tissue-engineered heart valves. <i>Journal of Biomechanics</i> , 2014 , 47, 2064-9	2.9	14
29	Plasma variations of biomarkers for muscle damage in male nondisabled and spinal cord injured subjects. <i>Journal of Rehabilitation Research and Development</i> , 2012 , 49, 361-72		14
28	Matrix production and organization by endothelial colony forming cells in mechanically strained engineered tissue constructs. <i>PLoS ONE</i> , 2013 , 8, e73161	3.7	13
27	Superior Tissue Evolution in Slow-Degrading Scaffolds for Valvular Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2016 , 22, 123-32	3.9	12
26	Mechanics of the pulmonary valve in the aortic position. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 29, 557-67	4.1	12
25	Understanding strain-induced collagen matrix development in engineered cardiovascular tissues from gene expression profiles. <i>Cell and Tissue Research</i> , 2013 , 352, 727-37	4.2	12
24	Mechanical analysis of ovine and pediatric pulmonary artery for heart valve stent design. <i>Journal of Biomechanics</i> , 2013 , 46, 2075-81	2.9	11
23	Computational and experimental investigation of local stress fiber orientation in uniaxially and biaxially constrained microtissues. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014 , 13, 1053-63	3.8	10
22	Biomechanics: Concepts and Computation 2009 ,		10

21	Cellular strain avoidance is mediated by a functional actin cap - observations in an -deficient cell model. <i>Journal of Cell Science</i> , 2017 , 130, 779-790	5.3	8
20	The Effects of Scaffold Remnants in Decellularized Tissue-Engineered Cardiovascular Constructs on the Recruitment of Blood Cells. <i>Tissue Engineering - Part A</i> , 2017 , 23, 1142-1151	3.9	8
19	Prediction of Cell Alignment on Cyclically Strained Grooved Substrates. <i>Biophysical Journal</i> , 2016 , 111, 2274-2285	2.9	8
18	Poly-ε-caprolactone scaffold and reduced in vitro cell culture: beneficial effect on compaction and improved valvular tissue formation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015 , 9, E289-301	4.4	8
17	The potential of prolonged tissue culture to reduce stress generation and retraction in engineered heart valve tissues. <i>Tissue Engineering - Part C: Methods</i> , 2013 , 19, 205-15	2.9	8
16	Remodeling of the collagen fiber architecture due to compaction in small vessels under tissue engineered conditions. <i>Journal of Biomechanical Engineering</i> , 2011 , 133, 071002	2.1	8
15	Low oxygen concentrations impair tissue development in tissue-engineered cardiovascular constructs. <i>Tissue Engineering - Part A</i> , 2012 , 18, 221-31	3.9	8
14	Geometry influences inflammatory host cell response and remodeling in tissue-engineered heart valves in-vivo. <i>Scientific Reports</i> , 2020 , 10, 19882	4.9	8
13	Excessive volume of hydrogel injectates may compromise the efficacy for the treatment of acute myocardial infarction. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2016 , 32, e02772	2.6	7
12	Are adipose-derived stem cells cultivated in human platelet lysate suitable for heart valve tissue engineering?. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017 , 11, 2193-2203	4.4	6
11	Cell nutrition 2008 , 327-362		5
10	Functional tissue engineering of the aortic heart valve. <i>Clinical Hemorheology and Microcirculation</i> , 2005 , 33, 197-9	2.5	5
9	Controlling the adaption behaviour of next-generation tissue-engineered cardiovascular implants via computational modelling. <i>European Heart Journal</i> , 2020 , 41, 1069-1073	9.5	4
8	Predicting and understanding collagen remodeling in human native heart valves during early development. <i>Acta Biomaterialia</i> , 2018 , 80, 203-216	10.8	4
7	Transcatheter-Delivered Expandable Bioresorbable Polymeric Graft With Stenting Capacity Induces Vascular Regeneration. <i>JACC Basic To Translational Science</i> , 2020 , 5, 1095-1110	8.7	3
6	Computed tomography detects tissue formation in a stented engineered heart valve. <i>Annals of Thoracic Surgery</i> , 2011 , 92, 344-5	2.7	2
5	Response to Dr. Schachar. <i>Journal of Biomechanics</i> , 2006 , 39, 2344-2345	2.9	2
4	Engineering fibrin-based tissue constructs from myofibroblasts and application of constraints and strain to induce cell and collagen reorganization. <i>Journal of Visualized Experiments</i> , 2013 , e51009	1.6	1

3	Living heart valve and small-diameter artery substitutes--an emerging field for intellectual property development. <i>Recent Patents on Biotechnology</i> , 2008 , 2, 1-9	2.2	1
2	Dual Electrospun Supramolecular Polymer Systems for Selective Cell Migration. <i>Macromolecular Bioscience</i> , 2018 , 18, e1800004	5.5	0
1	An overview of theoretical studies of the mechanical effects on cellular behaviour. Preface. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011 , 14, 401	2.1	