William R Wagner

List of Publications by Year
in descending order

241 papers	14,994 citations	16437 64 h-index	22147 113 g-index
247 all docs	247 docs citations	247 times ranked	13952 citing authors

#	Article	IF	Citations
1	Microbubbles Targeted to Intercellular Adhesion Molecule-1 Bind to Activated Coronary Artery Endothelial Cells. Circulation, 1998, 98, 1-5.	1.6	1,005
2	Preparation and characterization of highly porous, biodegradable polyurethane scaffolds for soft tissue applications. Biomaterials, 2005, 26, 3961-3971.	5.7	620
3	Microintegrating smooth muscle cells into a biodegradable, elastomeric fiber matrix. Biomaterials, 2006, 27, 735-744.	5.7	341
4	Design and analysis of tissue engineering scaffolds that mimic soft tissue mechanical anisotropy. Biomaterials, 2006, 27, 3631-8.	5.7	341
5	Elevated platelet factor 4 and Î²-thromboglobulin plasma levels in depressed patients with ischemic heart disease. Biological Psychiatry, 1997, 42, 290-295.	0.7	326
6	Fate Of Culture-Expanded Mesenchymal Stem Cells in The Microvasculature. Circulation Research, 2009, 104, 398-402.	2.0	280
7	Synthesis, characterization, and cytocompatibility of elastomeric, biodegradable poly(ester-urethane)ureas based on poly(caprolactone) and putrescine. Journal of Biomedical Materials Research Part B, 2002, 61, 493-503.	3.0	275
8	A bilayered elastomeric scaffold for tissue engineering of small diameter vascular grafts. Acta Biomaterialia, 2010, 6, 110-122.	4.1	258
9	Synthesis, characterization and therapeutic efficacy of a biodegradable, thermoresponsive hydrogel designed for application in chronic infarcted myocardium. Biomaterials, 2009, 30, 4357-4368.	5.7	248
10	Ultrasound Imaging of Acute Cardiac Transplant Rejection With Microbubbles Targeted to Intercellular Adhesion Molecule-1. Circulation, 2003, 108, 218-224.	1.6	242
11	Biodegradable poly(ether ester urethane)urea elastomers based on poly(ether ester) triblock copolymers and putrescine: synthesis, characterization and cytocompatibility. Biomaterials, 2004, 25, 85-96.	5.7	225
12	An Elastic, Biodegradable Cardiac Patch Induces Contractile Smooth Muscle and Improves Cardiac Remodeling and Function in Subacute Myocardial Infarction. Journal of the American College of Cardiology, 2007, 49, 2292-2300.	1.2	211
13	Fabrication of biodegradable elastomeric scaffolds with sub-micron morphologies. Journal of Biomedical Materials Research Part B, 2004, 70A, 603-614.	3.0	192
14	Mechanical properties and in vivo behavior of a biodegradable synthetic polymer microfiberâ€“extracellular matrix hydrogel biohybrid scaffold. Biomaterials, 2011, 32, 3387-3394.	5.7	188
15	Fabrication of cell microintegrated blood vessel constructs through electrohydrodynamic atomization. Biomaterials, 2007, 28, 2738-2746.	5.7	186
16	Intra-myocardial biomaterial injection therapy in the treatment of heart failure: Materials, outcomes and challenges. Acta Biomaterialia, 2011, 7, 1-15.	4.1	178
17	Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. Aging Cell, 2017, 16, 518-528.	3.0	172
18	Ultrasonic imaging of tumor angiogenesis using contrast microbubbles targeted via the tumor-binding peptide arginine-arginine-leucine. Cancer Research, 2005, 65, 533-9.	0.4	172

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19	Evaluation of Platelet Activation in Depressed Patients With Ischemic Heart Disease After Paroxetine or Nortriptyline Treatment. Journal of Clinical Psychopharmacology, 2000, 20, 137-140.	0.7	169
20	Development of a tissue-engineered vascular graft combining a biodegradable scaffold, muscle-derived stem cells and a rotational vacuum seeding technique. Biomaterials, 2008, 29, 825-833.	5.7	168
21	Injectable, rapid gelling and highly flexible hydrogel composites as growth factor and cell carriers. Acta Biomaterialia, 2010, 6, 1978-1991.	4.1	167
22	Tailoring the degradation kinetics of poly(ester carbonate urethane)urea thermoplastic elastomers for tissue engineering scaffolds. Biomaterials, 2010, 31, 4249-4258.	5.7	165
23	Biodegradable Polyurethane Ureas with Variable Polyester or Polycarbonate Soft Segments: Effects of Crystallinity, Molecular Weight, and Composition on Mechanical Properties. Biomacromolecules, 2011, 12, 3265-3274.	2.6	163
24	Myocardial Ischemic Memory Imaging With Molecular Echocardiography. Circulation, 2007, 115, 345-352.	1.6	154
25	Comparativein VitroAnalysis of Topical Hemostatic Agents. Journal of Surgical Research, 1996, 66, 100-108.	0.8	150
26	Computational Simulation of Platelet Deposition and Activation: I. Model Development and Properties. Annals of Biomedical Engineering, 1999, 27, 436-448.	1.3	150
27	A small diameter, fibrous vascular conduit generated from a poly(ester urethane)urea and phospholipid polymer blend. Biomaterials, 2009, 30, 2457-2467.	5.7	148
28	Biodegradable elastomeric scaffolds with basic fibroblast growth factor release. Journal of Controlled Release, 2007, 120, 70-78.	4.8	147
29	Characterization of the complete fiber network topology of planar fibrous tissues and scaffolds. Biomaterials, 2010, 31, 5345-5354.	5.7	144
30	Targeted ultrasound contrast agents: In vitro assessment of endothelial dysfunction and multi-targeting to ICAM-1 and sialyl Lewisx. Biotechnology and Bioengineering, 2005, 92, 780-788.	1.7	141
31	Pericyte-based human tissue engineered vascular grafts. Biomaterials, 2010, 31, 8235-8244.	5.7	137
32	In Vivo Assessment of a Tissue-Engineered Vascular Graft Combining a Biodegradable Elastomeric Scaffold and Muscle-Derived Stem Cells in a Rat Model. Tissue Engineering - Part A, 2010, 16, 1215-1223.	1.6	137
33	The engineering of organized human corneal tissue through the spatial guidance of corneal stromal stem cells. Biomaterials, 2012, 33, 1343-1352.	5.7	135
34	Modulating Targeted Adhesion of an Ultrasound Contrast Agent to Dysfunctional Endothelium. Annals of Biomedical Engineering, 2002, 30, 1012-1019.	1.3	131
35	Reactive oxygen species scavenging with a biodegradable, thermally responsive hydrogel compatible with soft tissue injection. Biomaterials, 2018, 177, 98-112.	5.7	128
36	Targeted In Vivo Labeling of Receptors for Vascular Endothelial Growth Factor. Circulation, 2003, 108, 97-103.	1.6	118

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37	Preclinical biocompatibility assessment of the EVAHEART ventricular assist device: Coating comparison and platelet activation. Journal of Biomedical Materials Research - Part A, 2007, 81A, 85-92.	2.1	118
38	On the biomechanical function of scaffolds for engineering load-bearing soft tissues. Acta Biomaterialia, 2010, 6, 2365-2381.	4.1	118
39	Synthesis, Characterization and Cytocompatibility of Polyurethaneurea Elastomers with Designed Elastase Sensitivity. Biomacromolecules, 2005, 6, 2833-2842.	2.6	116
40	Generating Elastic, Biodegradable Polyurethane/Poly(lactide-co-glycolide) Fibrous Sheets with Controlled Antibiotic Release via Two-Stream Electrospinning. Biomacromolecules, 2008, 9, 1200-1207.	2.6	107
41	Bi-layered polyurethane â€“ Extracellular matrix cardiac patch improves ischemic ventricular wall remodeling in a rat model. Biomaterials, 2016, 107, 1-14.	5.7	107
42	In Vivo Evaluation of a Porous, Elastic, Biodegradable Patch for Reconstructive Cardiac Procedures. Annals of Thoracic Surgery, 2007, 83, 648-654.	0.7	106
43	Hybrid nanofibrous scaffolds from electrospinning of a synthetic biodegradable elastomer and urinary bladder matrix. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 635-652.	1.9	102
44	Treatment of rat pancreatic islets with reactive PEG. Biomaterials, 2000, 21, 1155-1164.	5.7	95
45	In vivo performance of a phospholipidâ€coated bioerodable elastomeric graft for smallâ€diameter vascular applications. Journal of Biomedical Materials Research - Part A, 2011, 96A, 436-448.	2.1	95
46	Bioengineering Organized, Multilamellar Human Corneal Stromal Tissue by Growth Factor Supplementation on Highly Aligned Synthetic Substrates. Tissue Engineering - Part A, 2013, 19, 2063-2075.	1.6	94
47	Photoscissable Hydrogel Synthesis via Rapid Photopolymerization of Novel PEG-Based Polymers in the Absence of PhotoinitiatorsâŠ¥. Journal of the American Chemical Society, 1996, 118, 6235-6240.	6.6	93
48	A seeding device for tissue engineered tubular structures. Biomaterials, 2006, 27, 4863-4870.	5.7	93
49	Computational Simulation of Platelet Deposition and Activation: II. Results for Poiseuille Flow over Collagen. Annals of Biomedical Engineering, 1999, 27, 449-458.	1.3	92
50	Protein-Reactive, Thermoresponsive Copolymers with High Flexibility and Biodegradability. Biomacromolecules, 2008, 9, 1283-1292.	2.6	86
51	Thermally Responsive Injectable Hydrogel Incorporating Methacrylate-Polylactide for Hydrolytic Lability. Biomacromolecules, 2010, 11, 1873-1881.	2.6	84
52	Simple surface modification of a titanium alloy with silanated zwitterionic phosphorylcholine or sulfobetaine modifiers to reduce thrombogenicity. Colloids and Surfaces B: Biointerfaces, 2010, 79, 357-364.	2.5	79
53	Molecular barriers to biomaterial thrombosis by modification of surface proteins with polyethylene glycol. Biomaterials, 1998, 19, 1885-1893.	5.7	76
54	Morphological and mechanical characteristics of the reconstructed rat abdominal wall following use of a wet electrospun biodegradable polyurethane elastomer scaffold. Biomaterials, 2010, 31, 3253-3265.	5.7	75

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55	Microstructural manipulation of electrospun scaffolds for specific bending stiffness for heart valve tissue engineering. Acta Biomaterialia, 2012, 8, 4268-4277.	4.1	75
56	Tissue-to-cellular level deformation coupling in cell micro-integrated elastomeric scaffolds. Biomaterials, 2008, 29, 3228-3236.	5.7	74
57	Elastomeric Electrospun Polyurethane Scaffolds: The Interrelationship Between Fabrication Conditions, Fiber Topology, and Mechanical Properties. Advanced Materials, 2011, 23, 106-111.	11.1	73
58	Influence of Serotonin-Transporter-Linked Promoter Region Polymorphism on Platelet Activation in Geriatric Depression. American Journal of Psychiatry, 2001, 158, 2074-2076.	4.0	72
59	Corneal stromal stem cells versus corneal fibroblasts in generating structurally appropriate corneal stromal tissue. Experimental Eye Research, 2014, 120, 71-81.	1.2	71
60	Albumin Microbubble Adherence to Human Coronary Endothelium: Implications for Assessment of Endothelial Function Using Myocardial Contrast Echocardiography. Journal of the American College of Cardiology, 1997, 30, 689-693.	1.2	70
61	Targeting and ultrasound imaging of microbubble-based contrast agents. Magnetic Resonance Materials in Physics, Biology, and Medicine, 1999, 8, 177-184.	1.1	70
62	Immobilized carbonic anhydrase on hollow fiber membranes accelerates CO2 removal from blood. Journal of Membrane Science, 2012, 403-404, 25-31.	4.1	69
63	From single fiber to macro-level mechanics: A structural finite-element model for elastomeric fibrous biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 146-161.	1.5	69
64	Biodegradable poly(ester urethane)urea elastomers with variable amino content for subsequent functionalization with phosphorylcholine. Acta Biomaterialia, 2014, 10, 4639-4649.	4.1	66
65	Ventricular wall biomaterial injection therapy after myocardial infarction: Advances in material design, mechanistic insight and early clinical experiences. Biomaterials, 2017, 129, 37-53.	5.7	66
66	Heart valve scaffold fabrication: Bioinspired control of macro-scale morphology, mechanics and micro-structure. Biomaterials, 2018, 150, 25-37.	5.7	66
67	Modeling Flow Effects on Thrombotic Deposition in a Membrane Oxygenator. Artificial Organs, 2000, 24, 29-36.	1.0	65
68	Nonthrombogenic, Biodegradable Elastomeric Polyurethanes with Variable Sulfobetaine Content. ACS Applied Materials & Interfaces, 2014, 6, 22796-22806.	4.0	65
69	Timing effect of intramyocardial hydrogel injection for positively impacting left ventricular remodeling after myocardial infarction. Biomaterials, 2016, 83, 182-193.	5.7	64
70	Towards microfabricated biohybrid artificial lung modules for chronic respiratory support. Biomedical Microdevices, 2009, 11, 117-127.	1.4	63
71	Right Ventricular Outflow Tract Repair with a Cardiac Biologic Scaffold. Cells Tissues Organs, 2012, 195, 159-170.	1.3	62
72	Surface Modification of a Biodegradable Magnesium Alloy with Phosphorylcholine (PC) and Sulfobetaine (SB) Functional Macromolecules for Reduced Thrombogenicity and Acute Corrosion Resistance. Langmuir, 2013, 29, 8320-8327.	1.6	62

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73	Biodegradable, elastomeric coatings with controlled anti-proliferative agent release for magnesium-based cardiovascular stents. Colloids and Surfaces B: Biointerfaces, 2016, 144, 170-179.	2.5	62
74	Topography-driven surface renewal. Nature Physics, 2018, 14, 948-953.	6.5	59
75	Synthesis, characterization and surface modification of low moduli poly(ether carbonate) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	4.1	57
76	Controlled Release of IGF-1 and HGF from a Biodegradable Polyurethane Scaffold. Pharmaceutical Research, 2011, 28, 1282-1293.	1.7	57
77	Mesenchymal stem cells attenuate angiotensin II-induced aortic aneurysm growth in apolipoprotein E-deficient mice. Journal of Vascular Surgery, 2011, 54, 1743-1752.	0.6	56
78	Synthesis, Characterization, and Paclitaxel Release from a Biodegradable, Elastomeric, Poly(ester) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5 2012, 13, 3686-3694.	2.6	56
79	Multi-Constituent Simulation of Thrombus Deposition. Scientific Reports, 2017, 7, 42720.	1.6	56
80	Ultrasound molecular imaging of cardiovascular disease. Nature Clinical Practice Cardiovascular Medicine, 2008, 5, S26-S32.	3.3	55
81	Fiber micro-architecture in the longitudinal-radial and circumferential-radial planes of ascending thoracic aortic aneurysm media. Journal of Biomechanics, 2013, 46, 2787-2794.	0.9	55
82	A custom image-based analysis tool for quantifying elastin and collagen micro-architecture in the wall of the human aorta from multi-photon microscopy. Journal of Biomechanics, 2014, 47, 935-943.	0.9	54
83	Sustained viral gene delivery from a micro-fibrous, elastomeric cardiac patch to the ischemic rat heart. Biomaterials, 2017, 133, 132-143.	5.7	54
84	Intramyocardial injection of a fully synthetic hydrogel attenuates left ventricular remodeling post myocardial infarction. Biomaterials, 2019, 217, 119289.	5.7	54
85	Platelet activation, aggregation, and life span in calves implanted with axial flow ventricular assist devices. Annals of Thoracic Surgery, 2002, 73, 1933-1938.	0.7	51
86	An Elastomeric Patch Electrospun from a Blended Solution of Dermal Extracellular Matrix and Biodegradable Polyurethane for Rat Abdominal Wall Repair. Tissue Engineering - Part C: Methods, 2012, 18, 122-132.	1.1	51
87	The effect of polymer degradation time on functional outcomes of temporary elastic patch support in ischemic cardiomyopathy. Biomaterials, 2013, 34, 7353-7363.	5.7	51
88	Elastase-Sensitive Elastomeric Scaffolds with Variable Anisotropy for Soft Tissue Engineering. Pharmaceutical Research, 2008, 25, 2400-2412.	1.7	50
89	Optimal elastomeric scaffold leaflet shape for pulmonary heart valve leaflet replacement. Journal of Biomechanics, 2013, 46, 662-669.	0.9	50
90	Characterizing the modification of surface proteins with poly(ethylene glycol) to interrupt platelet adhesion. Biomaterials, 2006, 27, 3125-3135.	5.7	49

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91	Injectable, porous, biohybrid hydrogels incorporating decellularized tissue components for soft tissue applications. Acta Biomaterialia, 2018, 73, 112-126.	4.1	49
92	Naive Rat Amnion-Derived Cell Transplantation Improved Left Ventricular Function and Reduced Myocardial Scar of Postinfarcted Heart. Cell Transplantation, 2009, 18, 477-486.	1.2	48
93	Extended and sequential delivery of protein from injectable thermoresponsive hydrogels. Journal of Biomedical Materials Research - Part A, 2012, 100A, 776-785.	2.1	48
94	Creating molecular barriers to acute platelet deposition on damaged arteries with reactive polyethylene glycol. , 1998, 41, 251-256.		46
95	Transient elastic support for vein grafts using a constricting microfibrillar polymer wrap. Biomaterials, 2008, 29, 3213-3220.	5.7	46
96	Targeted ultrasound imaging using microbubbles. Cardiology Clinics, 2004, 22, 283-298.	0.9	45
97	Constitutive modeling of ascending thoracic aortic aneurysms using microstructural parameters. Medical Engineering and Physics, 2016, 38, 121-130.	0.8	45
98	Vacuum-Assisted Venous Drainage during Fetal Cardiopulmonary Bypass. ASAIO Journal, 2005, 51, 644-648.	0.9	44
99	Predicting Membrane Oxygenator Pressure Drop Using Computational Fluid Dynamics. Artificial Organs, 2002, 26, 600-607.	1.0	43
100	Development of Composite Porous Scaffolds Based on Collagen and Biodegradable Poly(ester) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	1.2	43
101	Vascular Endoluminal Delivery of Mesenchymal Stem Cells Using Acoustic Radiation Force. Tissue Engineering - Part A, 2011, 17, 1457-1464.	1.6	43
102	Biodegradable elastic patch plasty ameliorates left ventricular adverse remodeling after ischemiaâ€“reperfusion injury: A preclinical study of a porous polyurethane material in a porcine model. Journal of Thoracic and Cardiovascular Surgery, 2013, 146, 391-399.e1.	0.4	43
103	Non-invasive characterization of polyurethane-based tissue constructs in a rat abdominal repair model using high frequency ultrasound elasticity imaging. Biomaterials, 2013, 34, 2701-2709.	5.7	42
104	In VivoFunctional Evaluation of Tissue-Engineered Vascular Grafts Fabricated Using Human Adipose-Derived Stem Cells from High Cardiovascular Risk Populations. Tissue Engineering - Part A, 2016, 22, 765-775.	1.6	42
105	Molecular barriers to biomaterial thrombosis by modification of surface proteins with polyethylene glycol. Biomaterials, 1999, 20, 101-109.	5.7	41
106	Intramyocardial Injection of a Synthetic Hydrogel with Delivery of bFGF and IGF1 in a Rat Model of Ischemic Cardiomyopathy. Biomacromolecules, 2014, 15, 1-11.	2.6	41
107	Covalent surface modification of a titanium alloy with a phosphorylcholineâ€containing copolymer for reduced thrombogenicity in cardiovascular devices. Journal of Biomedical Materials Research - Part A, 2009, 91A, 18-28.	2.1	40
108	Surface modification of a titanium alloy with a phospholipid polymer prepared by a plasma-induced grafting technique to improve surface thromboresistance. Colloids and Surfaces B: Biointerfaces, 2009, 74, 96-102.	2.5	40

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109	Hollow Fiber Membrane Modification with Functional Zwitterionic Macromolecules for Improved Thromboresistance in Artificial Lungs. Langmuir, 2015, 31, 2463-2471.	1.6	40
110	Orthogonally Functionalizable Polyurethane with Subsequent Modification with Heparin and Endothelium-Inducing Peptide Aiming for Vascular Reconstruction. ACS Applied Materials & Interfaces, 2016, 8, 14442-14452.	4.0	39
111	Assessing acute platelet adhesion on opaque metallic and polymeric biomaterials with fiber optic microscopy. , 2000, 49, 460-468.		37
112	Evaluation of the stromal vascular fraction of adipose tissueÂas the basis for a stem cell-based tissue-engineered vascular graft. Journal of Vascular Surgery, 2017, 66, 883-890.e1.	0.6	37
113	A biostable, anti-fouling zwitterionic polyurethane-urea based on PDMS for use in blood-contacting medical devices. Journal of Materials Chemistry B, 2020, 8, 8305-8314.	2.9	37
114	Fabrication of elastomeric scaffolds with curvilinear fibrous structures for heart valve leaflet engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3101-3106.	2.1	36
115	Placement of an Elastic Biodegradable Cardiac Patch on a Subacute Infarcted Heart Leads to Cellularization With Early Developmental Cardiomyocyte Characteristics. Journal of Cardiac Failure, 2012, 18, 585-595.	0.7	35
116	Extracellular matrix fiber microarchitecture is region-specific in bicuspid aortic valve-associated ascending aortopathy. Journal of Thoracic and Cardiovascular Surgery, 2016, 151, 1718-1728.e5.	0.4	35
117	Active wrinkles to drive self-cleaning: A strategy for anti-thrombotic surfaces for vascular grafts. Biomaterials, 2019, 192, 226-234.	5.7	35
118	Highly crystalline MP-1 hydroxylapatite coating Part I:In vitrocharacterization and comparison to other plasma-sprayed hydroxylapatite coatings. Clinical Oral Implants Research, 1999, 10, 245-256.	1.9	34
119	Assessment of Hydraulic Performance and Biocompatibility of a MagLev Centrifugal Pump System Designed for Pediatric Cardiac or Cardiopulmonary Support. ASAIO Journal, 2007, 53, 771-777.	0.9	34
120	Optimization of ultrasound contrast agents with computational models to improve selection of ligands and binding strength. Biotechnology and Bioengineering, 2010, 107, 854-864.	1.7	34
121	Tailoring the degradation rates of thermally responsive hydrogels designed for soft tissue injection by varying the autocatalytic potential. Biomaterials, 2015, 53, 484-493.	5.7	34
122	A biohybrid artificial lung prototype with active mixing of endothelialized microporous hollow fibers. Biotechnology and Bioengineering, 2010, 106, 490-500.	1.7	33
123	Engineered Fetal Cardiac Graft Preserves Its Cardiomyocyte Proliferation Within Postinfarcted Myocardium and Sustains Cardiac Function. Tissue Engineering - Part A, 2011, 17, 585-596.	1.6	32
124	Thiol Click Modification of Cyclic Disulfide Containing Biodegradable Polyurethane Urea Elastomers. Biomacromolecules, 2015, 16, 1622-1633.	2.6	32
125	Visualization and analysis of biomaterial-centered thrombus formation within a defined crevice under flow. Biomaterials, 2016, 96, 72-83.	5.7	32
126	Nanometerâ€sized extracellular matrix coating on polymerâ€based scaffold for tissue engineering applications. Journal of Biomedical Materials Research - Part A, 2016, 104, 94-103.	2.1	32

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127	Monocyte Tissue Factor Expression and Ongoing Complement Generation in Ventricular Assist Device Patients. Annals of Thoracic Surgery, 1998, 65, 1071-1076.	0.7	31
128	Urinary bladder matrix promotes site appropriate tissue formation following right ventricle outflow tract repair. Organogenesis, 2013, 9, 149-160.	0.4	31
129	Non-invasive and Non-destructive Characterization of Tissue Engineered Constructs Using Ultrasound Imaging Technologies: A Review. Annals of Biomedical Engineering, 2016, 44, 621-635.	1.3	31
130	Effects of fabrication on the mechanics, microstructure and micromechanical environment of small intestinal submucosa scaffolds for vascular tissue engineering. Journal of Biomechanics, 2014, 47, 2766-2773.	0.9	30
131	Skeletal muscle derived stem cells microintegrated into a biodegradable elastomer for reconstruction of the abdominal wall. Biomaterials, 2017, 113, 31-41.	5.7	30
132	Surface Modification of Electrospun Scaffolds for Endothelialization of Tissue-Engineered Vascular Grafts Using Human Cord Blood-Derived Endothelial Cells. Journal of Clinical Medicine, 2019, 8, 185.	1.0	30
133	InÂvivo functional assessment of a novel degradable metal and elastomeric scaffold-based tissue engineered heart valve. Journal of Thoracic and Cardiovascular Surgery, 2019, 157, 1809-1816.	0.4	30
134	Design Optimization of Blood Shearing Instrument by Computational Fluid Dynamics. Artificial Organs, 2005, 29, 482-489.	1.0	29
135	InÂvivo monitoring of structural and mechanical changes of tissue scaffolds by multi-modality imaging. Biomaterials, 2014, 35, 7851-7859.	5.7	29
136	Highly crystalline MP-1 hydroxylapatite coating Part II:In vivoperformance on endosseous root implants in dogs. Clinical Oral Implants Research, 1999, 10, 257-266.	1.9	28
137	Measurement of Hemostatic Indexes in Conjunction With Transcranial Doppler Sonography in Patients With Ventricular Assist Devices. Stroke, 1999, 30, 2554-2561.	1.0	27
138	Biodegradable Zwitterionic Polymer Coatings for Magnesium Alloy Stents. Langmuir, 2019, 35, 1421-1429.	1.6	26
139	In-vivo assessment of a tissue engineered vascular graft computationally optimized for target vessel compliance. Acta Biomaterialia, 2021, 123, 298-311.	4.1	26
140	Real time visualization and characterization of platelet deposition under flow onto clinically relevant opaque surfaces. Journal of Biomedical Materials Research - Part A, 2015, 103, 1303-1311.	2.1	25
141	Abdominal wall reconstruction by a regionally distinct biocomposite of extracellular matrix digest and a biodegradable elastomer. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 748-761.	1.3	25
142	Biodegradable polyurethane scaffolds in regenerative medicine: Clinical translation review. Journal of Biomedical Materials Research - Part A, 2022, 110, 1460-1487.	2.1	25
143	Flow Cytometric Assays for Quantifying Activated Ovine Platelets. Artificial Organs, 2008, 32, 136-145.	1.0	24
144	Reconstructing the Lung. Science, 2010, 329, 520-522.	6.0	24

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145	Ultrasound Molecular Imaging of Angiogenesis Using Vascular Endothelial Growth Factor-Conjugated Microbubbles. Molecular Pharmaceutics, 2017, 14, 781-790.	2.3	24
146	In Vivo 5 Day Animal Studies of a Compact, Wearable Pumping Artificial Lung. ASAIO Journal, 2019, 65, 94-100.	0.9	24
147	Taking the Next Steps in Regenerative Rehabilitation: Establishment of a New Interdisciplinary Field. Archives of Physical Medicine and Rehabilitation, 2020, 101, 917-923.	0.5	24
148	Acute In Vivo Functional Assessment of a Biodegradable Stentless Elastomeric Tricuspid Valve. Journal of Cardiovascular Translational Research, 2020, 13, 796-805.	1.1	24
149	Temporal Leukocyte Numbers and Granulocyte Activation in Pulsatile and Rotary Ventricular Assist Device Patients. Artificial Organs, 2014, 38, 447-455.	1.0	23
150	Development of zwitterionic sulfobetaine block copolymer conjugation strategies for reduced platelet deposition in respiratory assist devices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2681-2692.	1.6	23
151	Hemocompatibility Assessment of Carbonic Anhydrase Modified Hollow Fiber Membranes for Artificial Lungs. Artificial Organs, 2010, 34, 439-442.	1.0	22
152	Biomanufacturing in low Earth orbit for regenerative medicine. Stem Cell Reports, 2022, 17, 1-13.	2.3	22
153	Flow cytometric assays to detect platelet activation and aggregation in device-implanted calves. , 1998, 41, 312-321.		21
154	A Three-Dimensional Gel Bioreactor for Assessment of Cardiomyocyte Induction in Skeletal Muscleâ€“Derived Stem Cells. Tissue Engineering - Part C: Methods, 2010, 16, 375-385.	1.1	21
155	Design of a Coupled Thermoresponsive Hydrogel and Robotic System for Postinfarct Biomaterial Injection Therapy. Annals of Thoracic Surgery, 2016, 102, 780-786.	0.7	21
156	Scaleâ€dependent fiber kinematics of elastomeric electrospun scaffolds for soft tissue engineering. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1032-1042.	2.1	20
157	Platelet Activation in Ovines Undergoing Sham Surgery or Implant of the Second Generation PediaFlow Pediatric Ventricular Assist Device. Artificial Organs, 2011, 35, 602-613.	1.0	20
158	Biocompatibility Assessment of the First Generation PediaFlow Pediatric Ventricular Assist Device. Artificial Organs, 2011, 35, 9-21.	1.0	19
159	Spatial control of gene expression within a scaffold by localized inducer release. Biomaterials, 2011, 32, 3062-3071.	5.7	19
160	Large strain stimulation promotes extracellular matrix production and stiffness in an elastomeric scaffold model. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 619-635.	1.5	19
161	The PediaFlowâ„¢ Pediatric Ventricular Assist Device. Pediatric Cardiac Surgery Annual, 2006, 9, 92-98.	0.5	18
162	Ultrasound Detection of Myocardial Ischemic Memory Using an E-Selectin Targeting Peptide Amenable to Human Application. Molecular Imaging, 2014, 13, 7290.2014.00006.	0.7	18

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163	Hybrid scaffolds of Mg alloy mesh reinforced polymer/extracellular matrix composite for critical-sized calvarial defect reconstruction. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1374-1388.	1.3	18
164	An exploratory study on the preparation and evaluation of a â€œsame-dayâ€•adipose stem cellâ€“based tissue-engineered vascular graft. Journal of Thoracic and Cardiovascular Surgery, 2018, 156, 1814-1822.e3.	0.4	18
165	Stretchable, Implantable, Nanostructured Flow-Diverter System for Quantification of Intra-aneurysmal Hemodynamics. ACS Nano, 2018, 12, 8706-8716.	7.3	18
166	Adipose-derived stem cell sheet under an elastic patch improves cardiac function in rats after myocardial infarction. Journal of Thoracic and Cardiovascular Surgery, 2022, 163, e261-e272.	0.4	18
167	Polyethylene glycol diisocyanate decreases platelet deposition after balloon injury of rabbit femoral arteries. Journal of Thrombosis and Thrombolysis, 2002, 13, 27-33.	1.0	17
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