Stephen F Badylak

List of Publications by Year
in descending order

409	51,909	764	1589
papers	citations	119 h-index	216 g-index

421	421	421	27385
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Perivascular Origin for Mesenchymal Stem Cells in Multiple Human Organs. Cell Stem Cell, 2008, 3, 301-313.	5.2	3,556
2	An overview of tissue and whole organ decellularization processes. Biomaterials, 2011, 32, 3233-3243.	5.7	2,647
3	Decellularization of tissues and organs. Biomaterials, 2006, 27, 3675-83.	5.7	1,676
4	Extracellular matrix as a biological scaffold material: Structure and function. Acta Biomaterialia, 2009, 5, 1-13.	4.1	1,450
5	The extracellular matrix as a biologic scaffold materialâ˜†. Biomaterials, 2007, 28, 3587-3593.	5.7	877
6	Whole-Organ Tissue Engineering: Decellularization and Recellularization of Three-Dimensional Matrix Scaffolds. Annual Review of Biomedical Engineering, 2011, 13, 27-53.	5.7	877
7	Macrophage phenotype and remodeling outcomes in response to biologic scaffolds with and without a cellular component. Biomaterials, 2009, 30, 1482-1491.	5.7	776
8	Immune response to biologic scaffold materials. Seminars in Immunology, 2008, 20, 109-116.	2.7	736
9	Macrophage polarization: An opportunity for improved outcomes in biomaterials and regenerative medicine. Biomaterials, 2012, 33, 3792-3802.	5.7	728
10	The extracellular matrix as a scaffold for tissue reconstruction. Seminars in Cell and Developmental Biology, 2002, 13, 377-383.	2.3	698
11	Xenogeneic extracellular matrix as a scaffold for tissue reconstruction. Transplant Immunology, 2004, 12, 367-377.	0.6	662
12	Macrophage Phenotype as a Determinant of Biologic Scaffold Remodeling. Tissue Engineering - Part A, 2008, 14, 1835-1842.	1.6	629
13	Macrophage phenotype as a predictor of constructive remodeling following the implantation of biologically derived surgical mesh materials. Acta Biomaterialia, 2012, 8, 978-987.	4.1	619
14	Extracellular matrix hydrogels from decellularized tissues: Structure and function. Acta Biomaterialia, 2017, 49, 1-15.	4.1	587
15	Extracellular matrix-based materials for regenerative medicine. Nature Reviews Materials, 2018, 3, 159-173.	23.3	572
16	Small intestinal submucosa as a large diameter vascular graft in the dog. Journal of Surgical Research, 1989, 47, 74-80.	0.8	548
17	Identification of extractable growth factors from small intestinal submucosa. Journal of Cellular Biochemistry, 1997, 67, 478-491.	1.2	545
18	Consequences of ineffective decellularization of biologic scaffolds on the host response. Biomaterials, 2012, 33, 1771-1781.	5.7	499

#	Article	IF	Citations
19	Methods of tissue decellularization used for preparation of biologic scaffolds and in vivo relevance. Methods, 2015, 84, 25-34.	1.9	472
20	Extracellular matrix scaffolds for cartilage and bone regeneration. Trends in Biotechnology, 2013, 31, 169-176.	4.9	465
21	Reprint of: Extracellular matrix as a biological scaffold material: Structure and function. Acta Biomaterialia, 2015, 23, S17-S26.	4.1	434
22	Preparation and rheological characterization of a gel form of the porcine urinary bladder matrix. Biomaterials, 2008, 29, 1630-1637.	5.7	426
23	The use of xenogeneic small intestinal submucosa as a biomaterial for Achille's tendon repair in a dog model. Journal of Biomedical Materials Research Part B, 1995, 29, 977-985.	3.0	423
24	Quantification of DNA in Biologic Scaffold Materials. Journal of Surgical Research, 2009, 152, 135-139.	0.8	410
25	The effects of processing methods upon mechanical and biologic properties of porcine dermal extracellular matrix scaffolds. Biomaterials, 2010, 31, 8626-8633.	5.7	386
26	An Acellular Biologic Scaffold Promotes Skeletal Muscle Formation in Mice and Humans with Volumetric Muscle Loss. Science Translational Medicine, 2014, 6, 234ra58.	5.8	384
27	Extracellular matrix as an inductive scaffold for functional tissue reconstruction. Translational Research, 2014, 163, 268-285.	2.2	380
28	The Basement Membrane Component of Biologic Scaffolds Derived from Extracellular Matrix. Tissue Engineering, 2006, 12, 519-526.	4.9	373
29	A hydrogel derived from decellularized dermal extracellular matrix. Biomaterials, 2012, 33, 7028-7038.	5.7	368
30	XENOGENEIC EXTRACELLULAR MATRIX GRAFTS ELICIT A TH2-RESTRICTED IMMUNE RESPONSE1. Transplantation, 2001, 71, 1631-1640.	0.5	342
31	Extracellular Matrix Bioscaffolds for Orthopaedic Applications. Journal of Bone and Joint Surgery - Series A, 2006, 88, 2673-2686.	1.4	337
32	Regenerative Urinary Bladder Augmentation Using Small Intestinal Submucosa: Urodynamic and Histopathologic Assessment in Long-term Canine Bladder augmentations. Journal of Urology, 1996, 155, 2098-2104.	0.2	331
33	Degradation Products of Extracellular Matrix Affect Cell Migration and Proliferation. Tissue Engineering - Part A, 2009, 15, 605-614.	1.6	329
34	Experimental assessment of small intestinal submucosa as a bladder wall substitute. Urology, 1995, 46, 396-400.	0.5	304
35	Macrophage Participation in the Degradation and Remodeling of Extracellular Matrix Scaffolds. Tissue Engineering - Part A, 2009, 15, 1687-1694.	1.6	303
36	Morphologic Study of Small Intestinal Submucosa as a Body Wall Repair Device. Journal of Surgical Research, 2002, 103, 190-202.	0.8	293

#	Article	IF	Citations
37	Glycosaminoglycan Content of Small Intestinal Submucosa: A Bioscaffold for Tissue Replacement. Tissue Engineering, 1996, 2, 209-217.	4.9	287
38	A Whole-Organ Regenerative Medicine Approach for Liver Replacement. Tissue Engineering - Part C: Methods, 2011, 17, 677-686.	1.1	280
39	Preparation of Cardiac Extracellular Matrix from an Intact Porcine Heart. Tissue Engineering - Part C: Methods, 2010, 16, 525-532.	1.1	270
40	Resorbable bioscaffold for esophageal repair in a dog model. Journal of Pediatric Surgery, 2000, 35, 1097-1103.	0.8	267
41	Esophageal Reconstruction with ECM and Muscle Tissue in a Dog Model. Journal of Surgical Research, 2005, 128, 87-97.	0.8	266
42	Matrix-bound nanovesicles within ECM bioscaffolds. Science Advances, 2016, 2, e1600502.	4.7	263
43	Maintenance of Human Hepatocyte FunctionIn Vitroby Liver-Derived Extracellular Matrix Gels. Tissue Engineering - Part A, 2010, 16, 1075-1082.	1.6	245
44	Functional skeletal muscle formation with a biologic scaffold. Biomaterials, 2010, 31, 7475-7484.	5.7	242
45	Perfusion-decellularized pancreas as a natural 3D scaffold for pancreatic tissue and whole organ engineering. Biomaterials, 2013, 34, 6760-6772.	5.7	242
46	Decellularized Allogeneic and Xenogeneic Tissue as a Bioscaffold for Regenerative Medicine: Factors that Influence the Host Response. Annals of Biomedical Engineering, 2014, 42, 1517-1527.	1.3	242
47	Small Intestinal Submucosa as a Vascular Graft: A Review. Journal of Investigative Surgery, 1993, 6, 297-310.	0.6	241
48	Intestine Submucosa and Polypropylene Mesh for Abdominal Wall Repair in Dogs. Journal of Surgical Research, 1996, 60, 107-114.	0.8	239
49	Hydrogels derived from central nervous system extracellular matrix. Biomaterials, 2013, 34, 1033-1040.	5.7	237
50	Clinical Application of an Acellular Biologic Scaffold for Surgical Repair of a Large, Traumatic Quadriceps Femoris Muscle Defect. Orthopedics, 2010, 33, 511.	0.5	235
51	Strength over Time of a Resorbable Bioscaffold for Body Wall Repair in a Dog Model. Journal of Surgical Research, 2001, 99, 282-287.	0.8	228
52	Regeneration of skeletal muscle. Cell and Tissue Research, 2012, 347, 759-774.	1.5	226
53	Hydrogels derived from demineralized and decellularized bone extracellular matrix. Acta Biomaterialia, 2013, 9, 7865-7873.	4.1	224
54	Biologic scaffold composed of skeletal muscle extracellular matrix. Biomaterials, 2012, 33, 2916-2925.	5.7	219

#	Article	IF	Citations
55	Biologic scaffolds composed of central nervous system extracellular matrix. Biomaterials, 2012, 33, 3539-3547.	5.7	217
56	Expanded applications, shifting paradigms and an improved understanding of hostâ€“biomaterial interactions. Acta Biomaterialia, 2013, 9, 4948-4955.	4.1	217
57	Antibacterial Activity within Degradation Products of Biological Scaffolds Composed of Extracellular Matrix. Tissue Engineering, 2006, 12, 2949-2955.	4.9	213
58	The promotion of a constructive macrophage phenotype by solubilized extracellular matrix. Biomaterials, 2014, 35, 8605-8612.	5.7	205
59	Extracellular matrix-derived products modulate endothelial and progenitor cell migration and proliferation in vitro and stimulate regenerative healing in vivo. Matrix Biology, 2010, 29, 690-700.	1.5	204
60	Esophageal Preservation in Five Male Patients After Endoscopic Inner-Layer Circumferential Resection in the Setting of Superficial Cancer: A Regenerative Medicine Approach with a Biologic Scaffold. Tissue Engineering - Part A, 2011, 17, 1643-1650.	1.6	203
61	Biaxial strength of multilaminated extracellular matrix scaffolds. Biomaterials, 2004, 25, 2353-2361.	5.7	200
62	In vivo degradation of 14C-labeled small intestinal submucosa (SIS) when used for urinary bladder repair. Biomaterials, 2001, 22, 2653-2659.	5.7	199
63	Assessing Porcine Liver-Derived Biomatrix for Hepatic Tissue Engineering. Tissue Engineering, 2004, 10, 1046-1053.	4.9	198
64	Chemoattraction of Progenitor Cells by Remodeling Extracellular Matrix Scaffolds. Tissue Engineering - Part A, 2009, 15, 1119-1125.	1.6	197
65	Rabbit urethral regeneration using small intestinal submucosa onlay grafts. Urology, 1998, 52, 138-142.	0.5	196
66	Degradation and Remodeling of Small Intestinal Submucosa in Canine Achilles Tendon Repair. Journal of Bone and Joint Surgery - Series A, 2007, 89, 621-630.	1.4	196
67	Small Intestinal Submucosa as a Small-Diameter Arterial Graft in the Dog. Journal of Investigative Surgery, 1990, 3, 217-227.	0.6	194
68	Macrophage polarization in response to ECM coated polypropylene mesh. Biomaterials, 2014, 35, 6838-6849.	5.7	193
69	Maintenance of Hepatic Sinusoidal Endothelial Cell Phenotype In Vitro Using Organ-Specific Extracellular Matrix Scaffolds. Tissue Engineering, 2007, 13, 2301-2310.	4.9	189
70	Naturally derived and synthetic scaffolds for skeletal muscle reconstruction. Advanced Drug Delivery Reviews, 2015, 84, 208-221.	6.6	189
71	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
72	The impact of detergents on the tissue decellularization process: A ToF-SIMS study. Acta Biomaterialia, 2017, 50, 207-219.	4.1	187

#	Article	IF	Citations
73	Low-Molecular-Weight Peptides Derived from Extracellular Matrix as Chemoattractants for Primary Endothelial Cells. Endothelium: Journal of Endothelial Cell Research, 2004, 11, 199-206.	1.7	184
74	Comparison of Three Methods for the Derivation of a Biologic Scaffold Composed of Adipose Tissue Extracellular Matrix. Tissue Engineering - Part C: Methods, 2011, 17, 411-421.	1.1	182
75	Biologic Scaffolds for Regenerative Medicine: Mechanisms of In vivo Remodeling. Annals of Biomedical Engineering, 2015, 43, 577-592.	1.3	182
76	Extracellular matrix scaffold devices for rotator cuff repair. Journal of Shoulder and Elbow Surgery, 2010, 19, 467-476.	1.2	179
77	Differential expression of muscle regulatory factor genes in normal and denervated adult rat hindlimb muscles. Developmental Dynamics, 1993, 198, 214-224.	0.8	177
78	Small Bowel Tissue Engineering Using Small Intestinal Submucosa as a Scaffold. Journal of Surgical Research, 2001, 99, 352-358.	0.8	176
79	Extracellular Matrix Scaffold for Cardiac Repair. Circulation, 2005, 112, I135-43.	1.6	174
80	Characterization of Small Intestinal Submucosa Regenerated Canine Detrusor: Assessment of Reinnervation, in Vitro Compliance and Contractility. Journal of Urology, 1996, 156, 599-607.	0.2	171
81	Marrow-derived cells populate scaffolds composed of xenogeneic extracellular matrix. Experimental Hematology, 2001, 29, 1310-1318.	0.2	170
82	Antimicrobial Activity Associated with Extracellular Matrices. Tissue Engineering, 2002, 8, 63-71.	4.9	164
83	Porcine small intestinal submucosa (SIS): a bioscaffold supporting in vitro primary human epidermal cell differentiation and synthesis of basement membrane proteins. Burns, 2001, 27, 254-266.	1.1	163
84	Extracellular matrix scaffolds are repopulated by bone marrow-derived cells in a mouse model of achilles tendon reconstruction. Journal of Orthopaedic Research, 2006, 24, 1299-1309.	1.2	162
85	An extracellular matrix scaffold for esophageal stricture prevention after circumferential EMR. Gastrointestinal Endoscopy, 2009, 69, 289-296.	0.5	162
86	Xenogeneic Extracellular Matrix as an Inductive Scaffold for Regeneration of a Functioning Musculotendinous Junction. Tissue Engineering - Part A, 2010, 16, 3309-3317.	1.6	162
87	Recruitment of Progenitor Cells by an Extracellular Matrix Cryptic Peptide in a Mouse Model of Digit Amputation. Tissue Engineering - Part A, 2011, 17, 2435-2443.	1.6	162
88	Small intestinal submucosa: a substrate for in vitro cell growth. Journal of Biomaterials Science, Polymer Edition, 1998, 9, 863-878.	1.9	161
89	Collagen fiber alignment and biaxial mechanical behavior of porcine urinary bladder derived extracellular matrix. Biomaterials, 2008, 29, 4775-4782.	5.7	158
90	The effect of detergents on the basement membrane complex of a biologic scaffold material. Acta Biomaterialia, 2014, 10, 183-193.	4.1	157

#	Article	IF	Citations
91	Extracellular matrix bioscaffolds in tissue remodeling and morphogenesis. Developmental Dynamics, 2016, 245, 351-360.	0.8	157
92	Non-invasive imaging of transplanted human neural stem cells and ECM scaffold remodeling in the stroke-damaged rat brain by 19F- and diffusion-MRI. Biomaterials, 2012, 33, 2858-2871.	5.7	155
93	Surface characterization of extracellular matrix scaffolds. Biomaterials, 2010, 31, 428-437.	5.7	154
94	An acellular biologic scaffold treatment for volumetric muscle loss: results of a 13-patient cohort study. Npj Regenerative Medicine, 2016, 1, 16008.	2.5	154
95	Endothelial cell adherence to small intestinal submucosa: an acellular bioscaffold. Biomaterials, 1999, 20, 2257-2263.	5.7	152
96	Comparison of the resistance to infection of intestinal submucosa arterial autografts versus polytetrafluoroethylene arterial prostheses in a dog model. Journal of Vascular Surgery, 1994, 19, 465-472.	0.6	150
97	Rethinking Regenerative Medicine: A Macrophage-Centered Approach. Frontiers in Immunology, 2014, 5, 510.	2.2	150
98	Epimorphic regeneration approach to tissue replacement in adult mammals. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3351-3355.	3.3	146
99	Solubilized extracellular matrix bioscaffolds derived from diverse source tissues differentially influence macrophage phenotype. Journal of Biomedical Materials Research - Part A, 2017, 105, 138-147.	2.1	145
100	Tissue-Engineered Myocardial Patch Derived From Extracellular Matrix Provides Regional Mechanical Function. Circulation, 2005, 112, I144-9.	1.6	144
101	Small intestinal submucosa as a superior vena cava graft in the dog. Journal of Surgical Research, 1992, 53, 175-181.	0.8	143
102	Effect of the Î±Gal Epitope on the Response to Small Intestinal Submucosa Extracellular Matrix in a Nonhuman Primate Model. Tissue Engineering - Part A, 2009, 15, 3877-3888.	1.6	142
103	ECM hydrogel coating mitigates the chronic inflammatory response to polypropylene mesh. Biomaterials, 2014, 35, 8585-8595.	5.7	141
104	Extracellular Matrix for Myocardial Repair. Heart Surgery Forum, 2003, 6, 20.	0.2	140
105	Naturally Occurring Extracellular Matrix as a Scaffold for Musculoskeletal Repair. Clinical Orthopaedics and Related Research, 1999, 367, S333-S343.	0.7	139
106	Characterization of Fibronectin Derived from Porcine Small Intestinal Submucosa. Tissue Engineering, 1998, 4, 75-83.	4.9	137
107	A Murine Model of Volumetric Muscle Loss and a Regenerative Medicine Approach for Tissue Replacement. Tissue Engineering - Part A, 2012, 18, 1941-1948.	1.6	135
108	GalÎ±(1,3)Gal Epitope in Porcine Small Intestinal Submucosa. Tissue Engineering, 2000, 6, 233-239.	4.9	134

#	Article	IF	Citations
109	The Use of Extracellular Matrix as an Inductive Scaffold for the Partial Replacement of Functional Myocardium. Cell Transplantation, 2006, 15, 29-40.	1.2	134
110	Injectable Extracellular Matrix Hydrogels as Scaffolds for Spinal Cord Injury Repair. Tissue Engineering - Part A, 2016, 22, 306-317.	1.6	134
111	Biomaterials for tissue engineering applications. Seminars in Pediatric Surgery, 2014, 23, 112-118.	0.5	131
112	Application and evaluation of the alamarblue assay for cell growth and survival of fibroblasts. In Vitro Cellular and Developmental Biology - Animal, 1998, 34, 239-246.	0.7	130
113	Healing Comparison of Small Intestine Submucosa and ePTFE Grafts in the Canine Carotid Artery. Journal of Surgical Research, 1995, 58, 415-420.	0.8	129
114	Thrombospondin-1 Mimetic Peptide Inhibitors of Angiogenesis and Tumor Growth:Â Design, Synthesis, and Optimization of Pharmacokinetics and Biological Activitiesâ€. Journal of Medicinal Chemistry, 2005, 48, 2838-2846.	2.9	129
115	Hepatic differentiation of amniotic epithelial cells. Hepatology, 2011, 53, 1719-1729.	3.6	128
116	Small Intestinal Submucosa. Annals of Plastic Surgery, 1995, 35, 374-380.	0.5	127
117	The Use of Biologic Scaffolds in the Treatment of Chronic Nonhealing Wounds. Advances in Wound Care, 2015, 4, 490-500.	2.6	127
118	Concentration-dependent rheological properties of ECM hydrogel for intracerebral delivery to a stroke cavity. Acta Biomaterialia, 2015, 27, 116-130.	4.1	127
119	Production and characterization of ECM powder: implications for tissue engineering applications. Biomaterials, 2005, 26, 1431-1435.	5.7	124
120	Macrophage phenotype in response to ECM bioscaffolds. Seminars in Immunology, 2017, 29, 2-13.	2.7	122
121	Hydrated xenogeneic decellularized tracheal matrix as a scaffold for tracheal reconstruction. Biomaterials, 2010, 31, 3520-3526.	5.7	118
122	Small Intestinal Submucosa. Annals of Plastic Surgery, 1995, 35, 381-388.	0.5	116
123	The use of porcine small intestinal submucosa to enhance the healing of the medial collateral ligamentâ€"a functional tissue engineering study in rabbits. Journal of Orthopaedic Research, 2004, 22, 214-220.	1.2	116
124	Regenerative medicine and developmental biology: The role of the extracellular matrix. The Anatomical Record Part B: the New Anatomist, 2005, 287B, 36-41.	1.3	116
125	ECM hydrogel for the treatment of stroke: Characterization of the host cell infiltrate. Biomaterials, 2016, 91, 166-181.	5.7	116
126	Biocompatibility of Small-Intestinal Submucosa in Urinary Tract as Augmentation Cystoplasty Graft and Injectable Suspension. Journal of Endourology, 1994, 8, 125-130.	1.1	112

#	Article	IF	Citations
127	Progress in tissue engineering and regenerative medicine. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3285-3286.	3.3	112
128	Histology after dural grafting with small intestinal submucosa. World Neurosurgery, 1996, 46, 389-393.	1.3	111
129	Uniaxial and biaxial properties of terminally sterilized porcine urinary bladder matrix scaffolds. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 84B, 408-414.	1.6	111
130	Perfusion-decellularized skeletal muscle as a three-dimensional scaffold with a vascular network template. Biomaterials, 2016, 89, 114-126.	5.7	111
131	The Th2-Restricted Immune Response to Xenogeneic Small Intestinal Submucosa Does Not Influence Systemic Protective Immunity to Viral and Bacterial Pathogens. Tissue Engineering, 2002, 8, 53-62.	4.9	110
132	Chemoattractant activity of degradation products of fetal and adult skin extracellular matrix for keratinocyte progenitor cells. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 491-498.	1.3	110
133	Extracellular Matrix-Based Biomaterials and Their Influence Upon Cell Behavior. Annals of Biomedical Engineering, 2020, 48, 2132-2153.	1.3	110
134	The effect of source animal age upon the inÂvivo remodeling characteristics of an extracellular matrix scaffold. Biomaterials, 2012, 33, 5524-5533.	5.7	109
135	The effect of source animal age upon extracellular matrix scaffold properties. Biomaterials, 2011, 32, 128-136.	5.7	108
136	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
137	Fibronectin peptides mediate HMEC adhesion to porcine-derived extracellular matrix. Biomaterials, 2002, 23, 1841-1848.	5.7	106
138	Molecular assessment of collagen denaturation in decellularized tissues using a collagen hybridizing peptide. Acta Biomaterialia, 2017, 53, 268-278.	4.1	106
139	Extracellular Matrix Bioscaffolds as Immunomodulatory Biomaterials<sup />. Tissue Engineering - Part A, 2017, 23, 1152-1159.	1.6	106
140	Biologic Scaffold Remodeling in a Dog Model of Complex Musculoskeletal Injury. Journal of Surgical Research, 2012, 176, 490-502.	0.8	104
141	Polypropylene surgical mesh coated with extracellular matrix mitigates the host foreign body response. Journal of Biomedical Materials Research - Part A, 2014, 102, 234-246.	2.1	104
142	A quantitative method for evaluating the degradation of biologic scaffold materials. Biomaterials, 2007, 28, 147-150.	5.7	102
143	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
144	Aerobic fitness and resting energy expenditure in young adult males. Metabolism: Clinical and Experimental, 1989, 38, 85-90.	1.5	99

#	Article	IF	Citations
145	Retention of Endothelial Cell Adherence to Porcine-Derived Extracellular Matrix after Disinfection and Sterilization. Tissue Engineering, 2002, 8, 225-234.	4.9	97
146	Role of the Extracellular Matrix in Whole Organ Engineering. Journal of Cellular Physiology, 2014, 229, 984-989.	2.0	96
147	The host response to allogeneic and xenogeneic biological scaffold materials. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 504-511.	1.3	95
148	Biologic Scaffolds. Cold Spring Harbor Perspectives in Medicine, 2017, 7, a025676.	2.9	93
149	Biodegradation of ECM hydrogel promotes endogenous brain tissue restoration in a rat model of stroke. Acta Biomaterialia, 2018, 80, 66-84.	4.1	93
150	EXTRACELLULAR MATRIX BIOSCAFFOLDS FOR ORTHOPAEDIC APPLICATIONS. Journal of Bone and Joint Surgery - Series A, 2006, 88, 2673-2686.	1.4	93
151	Fabrication and characterization of bioactive and antibacterial composites for dental applications. Acta Biomaterialia, 2014, 10, 3723-3732.	4.1	92
152	Porcine small intestinal submucosa as a dural substitute. World Neurosurgery, 1999, 51, 99-104.	1.3	89
153	Extracellular Matrix Degradation Products and Low-Oxygen Conditions Enhance the Regenerative Potential of Perivascular Stem Cells. Tissue Engineering - Part A, 2011, 17, 37-44.	1.6	89
154	Evidence of innervation following extracellular matrix scaffold-mediated remodelling of muscular tissues. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 590-600.	1.3	88
155	Decellularization and Cell Seeding of Whole Liver Biologic Scaffolds Composed of Extracellular Matrix. Journal of Clinical and Experimental Hepatology, 2015, 5, 69-80.	0.4	87
156	Damage associated molecular patterns within xenogeneic biologic scaffolds and their effects on host remodeling. Biomaterials, 2012, 33, 91-101.	5.7	86
157	Reinforcement of Esophageal Anastomoses With an Extracellular Matrix Scaffold in a Canine Model. Annals of Thoracic Surgery, 2006, 82, 2050-2058.	0.7	85
158	Matrix-Bound Nanovesicles Recapitulate Extracellular Matrix Effects on Macrophage Phenotype. Tissue Engineering - Part A, 2017, 23, 1283-1294.	1.6	85
159	Natural anti-galactose Î±1,3 galactose antibodies delay, but do not prevent the acceptance of extracellular matrix xenografts. Transplant Immunology, 2002, 10, 15-24.	0.6	83
160	The surface molecular functionality of decellularized extracellular matrices. Biomaterials, 2011, 32, 137-143.	5.7	83
161	Effects of Biologic Scaffolds on Human Stem Cells and Implications for CNS Tissue Engineering. Tissue Engineering - Part A, 2014, 20, 313-323.	1.6	83
162	Patch Esophagoplasty: Esophageal Reconstruction Using Biologic Scaffolds. Annals of Thoracic Surgery, 2014, 97, 283-288.	0.7	82

#	Article	IF	Citations
163	Morphologic Assessment of Extracellular Matrix Scaffolds for Patch Tracheoplasty in a Canine Model. Annals of Thoracic Surgery, 2008, 86, 967-974.	0.7	81
164	Intestinal stem cell growth and differentiation on a tubular scaffold with evaluation in small and large animals. Regenerative Medicine, 2016, 11, 45-61.	0.8	81
165	Correlation of motor-evoked potential response to ischemic spinal cord damage. Journal of Thoracic and Cardiovascular Surgery, 1992, 104, 262-272.	0.4	80
166	Enhanced Bone Regeneration Using Porcine Small Intestinal Submucosa. Journal of Investigative Surgery, 1999, 12, 277-287.	0.6	78
167	Gene Expression by Fibroblasts Seeded on Small Intestinal Submucosa and Subjected to Cyclic Stretching. Tissue Engineering, 2007, 13, 1313-1323.	4.9	78
168	Hydrated versus lyophilized forms of porcine extracellular matrix derived from the urinary bladder. Journal of Biomedical Materials Research - Part A, 2008, 87A, 862-872.	2.1	74
169	The Effect of Range of Motion on Remodeling of Small Intestinal Submucosa (SIS) When Used as an Achilles Tendon Repair Material in the Rabbit. Tissue Engineering, 1997, 3, 27-37.	4.9	73
170	FGF-2 Enhances Vascularization for Adipose Tissue Engineering. Plastic and Reconstructive Surgery, 2008, 121, 1153-1164.	0.7	71
171	Solubilized extracellular matrix from brain and urinary bladder elicits distinct functional and phenotypic responses in macrophages. Biomaterials, 2015, 46, 131-140.	5.7	71
172	Extracellular Matrix as a Scaffold for Laryngeal Reconstruction. Annals of Otology, Rhinology and Laryngology, 2003, 112, 428-433.	0.6	70
173	Degradation and Remodeling of Small Intestinal Submucosa in Canine Achilles Tendon Repair. Journal of Bone and Joint Surgery - Series A, 2007, 89, 621-630.	1.4	70
174	An Isolated Cryptic Peptide Influences Osteogenesis and Bone Remodeling in an Adult Mammalian Model of Digit Amputation. Tissue Engineering - Part A, 2011, 17, 3033-3044.	1.6	69
175	Snapshot: Biologic Scaffolds For Constructive Tissue Remodeling. Biomaterials, 2011, 32, 316-319.	5.7	69
176	Tissue-Specific Effects of Esophageal Extracellular Matrix. Tissue Engineering - Part A, 2015, 21, 2293-2300.	1.6	68
177	Perivascular extracellular matrix hydrogels mimic native matrix microarchitecture and promote angiogenesis via basic fibroblast growth factor. Biomaterials, 2017, 123, 142-154.	5.7	68
178	Constructive Remodeling of Biologic Scaffolds is Dependent on Early Exposure to Physiologic Bladder Filling in a Canine Partial Cystectomy Model. Journal of Surgical Research, 2010, 161, 217-225.	0.8	67
179	Preparation and characterization of a biologic scaffold from esophageal mucosa. Biomaterials, 2013, 34, 6729-6737.	5.7	67
180	Inductive, Scaffold-Based, Regenerative Medicine Approach to Reconstruction of the Temporomandibular Joint Disk. Journal of Oral and Maxillofacial Surgery, 2012, 70, 2656-2668.	0.5	66

#	Article	IF	Citations
181	Fractionation of an ECM hydrogel into structural and soluble components reveals distinctive roles in regulating macrophage behavior. Biomaterials Science, 2014, 2, 1521-1534.	2.6	66
182	The effect of terminal sterilization on the material properties and in vivo remodeling of a porcine dermal biologic scaffold. Acta Biomaterialia, 2016, 33, 78-87.	4.1	66
183	A fusion protein of hepatocyte growth factor enhances reconstruction of myocardium in a cardiac patch derived from porcine urinary bladder matrix. Journal of Thoracic and Cardiovascular Surgery, 2008, 136, 1309-1317.	0.4	63
184	Tissue Engineering and Regenerative Medicine Approaches to Enhance the Functional Response to Skeletal Muscle Injury. Anatomical Record, 2014, 297, 51-64.	0.8	63
185	Targeted Rehabilitation After Extracellular Matrix Scaffold Transplantation for the Treatment of Volumetric Muscle Loss. American Journal of Physical Medicine and Rehabilitation, 2014, 93, S79-S87.	0.7	63
186	Immunomodulation and Mobilization of Progenitor Cells by Extracellular Matrix Bioscaffolds for Volumetric Muscle Loss Treatment. Tissue Engineering - Part A, 2016, 22, 1129-1139.	1.6	63
187	Repair of the tympanic membrane with urinary bladder matrix. Laryngoscope, 2009, 119, 1206-1213.	1.1	62
188	Right Ventricular Outflow Tract Repair with a Cardiac Biologic Scaffold. Cells Tissues Organs, 2012, 195, 159-170.	1.3	62
189	Mechanisms by which acellular biologic scaffolds promote functional skeletal muscle restoration. Biomaterials, 2016, 103, 128-136.	5.7	62
190	The extracellular matrix of the gastrointestinal tract: a regenerative medicine platform. Nature Reviews Gastroenterology and Hepatology, 2017, 14, 540-552.	8.2	61
191	Scaffolds containing growth factors and extracellular matrix induce hepatocyte proliferation and cell migration in normal and regenerating rat liver. Journal of Hepatology, 2011, 54, 279-287.	1.8	60
192	Regenerative Bladder Augmentation: A Review of the Initial Preclinical Studies with Porcine Small Intestinal Submucosa. Advances in Experimental Medicine and Biology, 1995, 385, 229-235.	0.8	60
193	Hyperthermia-induced vascular injury in normal and neoplastic tissue. Cancer, 1985, 56, 991-1000.	2.0	59
194	Fiber Kinematics of Small Intestinal Submucosa Under Biaxial and Uniaxial Stretch. Journal of Biomechanical Engineering, 2006, 128, 890-898.	0.6	59
195	Repair of the Thoracic Wall With an Extracellular Matrix Scaffold in a Canine Model. Journal of Surgical Research, 2008, 147, 61-67.	0.8	59
196	A comprehensive protein expression profile of extracellular matrix biomaterial derived from porcine urinary bladder. Regenerative Medicine, 2012, 7, 159-166.	0.8	58
197	Solubilized liver extracellular matrix maintains primary rat hepatocyte phenotype inâ€vitro. Journal of Biomedical Materials Research - Part A, 2016, 104, 957-965.	2.1	58
198	Quantitative multispectral imaging of Herovici's polychrome for the assessment of collagen content and tissue remodelling. Journal of Tissue Engineering and Regenerative Medicine, 2013, 7, 139-148.	1.3	57

#	Article	IF	Citations
199	Adrenal Extracellular Matrix Scaffolds Support Adrenocortical Cell Proliferation and FunctionIn Vitro. Tissue Engineering - Part A, 2010, 16, 3363-3374.	1.6	56
200	Implantation of Brain-Derived Extracellular Matrix Enhances Neurological Recovery after Traumatic Brain Injury. Cell Transplantation, 2017, 26, 1224-1234.	1.2	56
201	The effect of cell debris within biologic scaffolds upon the macrophage response. Journal of Biomedical Materials Research - Part A, 2017, 105, 2109-2118.	2.1	55
202	Biologic scaffolds for musculotendinous tissue repair. , 2013, 25, 130-143.		55
203	Effect of storage upon material properties of lyophilized porcine extracellular matrix derived from the urinary bladder. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 78B, 327-333.	1.6	54
204	Extracellular Matrix Bioscaffolds for Building Gastrointestinal Tissue. Cellular and Molecular Gastroenterology and Hepatology, 2018, 5, 1-13.	2.3	54
205	Lipidomics and RNA sequencing reveal a novel subpopulation of nanovesicle within extracellular matrix biomaterials. Science Advances, 2020, 6, eaay4361.	4.7	54
206	Restoring Mucosal Barrier Function and Modifying Macrophage Phenotype with an Extracellular Matrix Hydrogel: Potential Therapy for Ulcerative Colitis. Journal of Crohn's and Colitis, 2017, 11, jjw149.	0.6	53
207	Long-term retention of ECM hydrogel after implantation into a sub-acute stroke cavity reduces lesion volume. Acta Biomaterialia, 2017, 63, 50-63.	4.1	53
208	Host protection against deliberate bacterial contamination of an extracellular matrix bioscaffold versus Dacron? mesh in a dog model of orthopedic soft tissue repair. Journal of Biomedical Materials Research Part B, 2003, 67B, 648-654.	3.0	52
209	Effect of an Inductive Hydrogel Composed of Urinary Bladder Matrix Upon Functional Recovery Following Traumatic Brain Injury. Tissue Engineering - Part A, 2013, 19, 1909-1918.	1.6	52
210	Lysine-Derived Urethane Surgical Adhesive Prevents Seroma Formation in a Canine Abdominoplasty Model. Plastic and Reconstructive Surgery, 2008, 122, 95-102.	0.7	51
211	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
212	Preclinical Animal Models for Temporomandibular Joint Tissue Engineering. Tissue Engineering - Part B: Reviews, 2018, 24, 171-178.	2.5	51
213	Small Intestinal Submucosa (SIS): A Biomaterial Conducive to Smart Tissue Remodeling. , 1993, , 179-189.		51
214	The Emerging Relationship Between Regenerative Medicine and Physical Therapeutics. Physical Therapy, 2010, 90, 1807-1814.	1.1	50
215	Inhibition of COX1/2 alters the host response and reduces ECM scaffold mediated constructive tissue remodeling in a rodent model of skeletal muscle injury. Acta Biomaterialia, 2016, 31, 50-60.	4.1	50
216	Injectable, porous, biohybrid hydrogels incorporating decellularized tissue components for soft tissue applications. Acta Biomaterialia, 2018, 73, 112-126.	4.1	49

#	Article	IF	Citations
217	Increased Myocyte Content and Mechanical Function Within a Tissue-Engineered Myocardial Patch Following Implantation. Tissue Engineering - Part A, 2009, 15, 2189-2201.	1.6	46
218	Characterization of Small Intestinal Submucosa Regenerated Canine Detrusor. Journal of Urology, 1996, 156, 599-607.	0.2	45
219	Analytically derived material properties of multilaminated extracellular matrix devices using the ball-burst test. Biomaterials, 2005, 26, 5518-5531.	5.7	44
220	Use of a particulate extracellular matrix bioscaffold for treatment of acquired urinary incontinence in dogs. Journal of the American Veterinary Medical Association, 2005, 226, 1095-1097.	0.2	44
221	Biologic scaffold for CNS repair. Regenerative Medicine, 2014, 9, 367-383.	0.8	44
222	InÂvivo degradation of 14C-labeled porcine dermis biologic scaffold. Biomaterials, 2014, 35, 8297-8304.	5.7	43
223	Preparation and characterization of a biologic scaffold and hydrogel derived from colonic mucosa. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 291-306.	1.6	43
224	Histologic Characterization of Acellular Dermal Matrices in a Porcine Model of Tissue Expander Breast Reconstruction. Tissue Engineering - Part A, 2015, 21, 35-44.	1.6	42
225	Limitations of open-chest cardiac massage after prolonged, untreated cardiac arrest in dogs. Annals of Emergency Medicine, 1991, 20, 761-767.	0.3	41
226	Extracellular Matrix as an Inductive Template for Temporomandibular Joint Meniscus Reconstruction: A Pilot Study. Journal of Oral and Maxillofacial Surgery, 2011, 69, e488-e505.	0.5	41
227	Predicting In Vivo Responses to Biomaterials via Combined In Vitro and In Silico Analysis. Tissue Engineering - Part C: Methods, 2015, 21, 148-159.	1.1	41
228	The Effect of Mechanical Loading Upon Extracellular Matrix Bioscaffold-Mediated Skeletal Muscle Remodeling. Tissue Engineering - Part A, 2018, 24, 34-46.	1.6	41
229	Matrix-bound nanovesicles prevent ischemia-induced retinal ganglion cell axon degeneration and death and preserve visual function. Scientific Reports, 2019, 9, 3482.	1.6	41
230	Graft IL-33 regulates infiltrating macrophages to protect against chronic rejection. Journal of Clinical Investigation, 2020, 130, 5397-5412.	3.9	41
231	Electromechanical characterization of a tissue-engineered myocardial patch derived from extracellular matrix. Journal of Thoracic and Cardiovascular Surgery, 2007, 133, 979-985.	0.4	40
232	Refinement of Technique in Injection Lipolysis Based on Scientific Studies and Clinical Evaluation. Clinics in Plastic Surgery, 2009, 36, 195-209.	0.7	40
233	Immunomodulatory biomaterials. Current Opinion in Biomedical Engineering, 2018, 6, 51-57.	1.8	39
234	Formation of a SISâ€“Cartilage Composite Graft in Vitro and Its Use in the Repair of Articular Cartilage Defects. Tissue Engineering, 1998, 4, 143-155.	4.9	38

#	Article	IF	Citations
235	Phenotypic changes in cultured smooth muscle cells: limitation or opportunity for tissue engineering of hollow organs?. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 505-511.	1.3	38
236	Regional Variations in the Histology of Porcine Skin. Tissue Engineering - Part C: Methods, 2015, 21, 373-384.	1.1	38
237	A model of left ventricular dysfunction caused by intracoronary adriamycin. Annals of Thoracic Surgery, 1992, 53, 861-863.	0.7	36
238	Production and characterization of engineered alginate-based microparticles containing ECM powder for cell/tissue engineering applications. Acta Biomaterialia, 2011, 7, 1050-1062.	4.1	36
239	Human mesenchymal stem cells seeded on extracellular matrixâ€scaffold: Viability and osteogenic potential. Journal of Cellular Physiology, 2012, 227, 857-866.	2.0	36
240	Regenerative Medicine Strategies for Esophageal Repair. Tissue Engineering - Part B: Reviews, 2015, 21, 393-410.	2.5	36
241	Regenerative Medicine Approaches for Age-Related Muscle Loss and Sarcopenia: A Mini-Review. Gerontology, 2017, 63, 580-589.	1.4	36
242	The Application of Tissue Engineering Procedures to Repair the Larynx. Journal of Speech, Language, and Hearing Research, 2006, 49, 194-208.	0.7	35
243	The effects of DNA methyltransferase inhibitors and histone deacetylase inhibitors on digit regeneration in mice. Regenerative Medicine, 2010, 5, 201-220.	0.8	35
244	The Host Response to Endotoxin-Contaminated Dermal Matrix. Tissue Engineering - Part A, 2012, 18, 1293-1303.	1.6	35
245	Composite ECMâ€“alginate microfibers produced by microfluidics as scaffolds with biomineralization potential. Materials Science and Engineering C, 2015, 56, 141-153.	3.8	35
246	Human Testis Extracellular Matrix Enhances Human Spermatogonial Stem Cell Survival In Vitro. Tissue Engineering - Part A, 2019, 25, 663-676.	1.6	35
247	Partial Characterization of the Sox2+ Cell Population in an Adult Murine Model of Digit Amputation. Tissue Engineering - Part A, 2012, 18, 1454-1463.	1.6	34
248	Equine cellular therapyâ€”from stall to bench to bedside?. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83A, 103-113.	1.1	34
249	Electrodiagnostic Evaluation of Individuals Implanted With Extracellular Matrix for the Treatment of Volumetric Muscle Injury: Case Series. Physical Therapy, 2016, 96, 540-549.	1.1	34
250	Urinary bladder extracellular matrix hydrogels and matrix-bound vesicles differentially regulate central nervous system neuron viability and axon growth and branching. Journal of Biomaterials Applications, 2017, 31, 1277-1295.	1.2	34
251	In VivoUltrasound-Assisted Tissue-Engineered Mandibular Condyle: A Pilot Study in Rabbits. Tissue Engineering - Part C: Methods, 2010, 16, 1315-1323.	1.1	32
252	Mechanical strength vs. degradation of a biologically-derived surgical mesh over time in a rodent full thickness abdominal wall defect. Biomaterials, 2016, 108, 81-90.	5.7	32

#	Article	IF	Citations
253	Oxygen diffusivity of biologic and synthetic scaffold materials for tissue engineering. Journal of Biomedical Materials Research - Part A, 2009, 91A, 1010-1017.	2.1	31
254	Biomaterials-based in situ tissue engineering. Current Opinion in Biomedical Engineering, 2017, 1, 4-7.	1.8	31
255	Resistance to Infection of Five Different Materials in a Rat Body Wall Model. Journal of Surgical Research, 2012, 173, 38-44.	0.8	30
256	Bolus dose response characteristics of single chain urokinase plasminogen activator and tissue plasminogen activator in a dog model of arterial thrombosis. Thrombosis Research, 1988, 52, 295-312.	0.8	29
257	Bone marrowâ€"derived cells participate in the long-term remodeling in a mouse model of esophageal reconstruction. Journal of Surgical Research, 2013, 182, e1-e7.	0.8	29
258	A scaffold immune microenvironment. Science, 2016, 352, 298-298.	6.0	29
259	Diamagnetic chemical exchange saturation transfer (diaCEST) affords magnetic resonance imaging of extracellular matrix hydrogel implantation in a rat model of stroke. Biomaterials, 2017, 113, 176-190.	5.7	29
260	Matrix bound nanovesicle-associated IL-33 activates a pro-remodeling macrophage phenotype via a non-canonical, ST2-independent pathway. Journal of Immunology and Regenerative Medicine, 2019, 3, 26-35.	0.2	29
261	Cytocompatibility and mechanical properties of surgical sealants for cardiovascular applications. Journal of Thoracic and Cardiovascular Surgery, 2019, 157, 176-183.	0.4	29
262	Regenerative Urinary Bladder Augmentation Using Small Intestinal Submucosa. Journal of Urology, 1996, , 2098-2104.	0.2	29
263	Liverâ€derived extracellular matrix as a biologic scaffold for acute vocal fold repair in a canine model. Laryngoscope, 2009, 119, 1856-1863.	1.1	28
264	Neurorestorative Effect of Urinary Bladder Matrix-Mediated Neural Stem Cell Transplantation Following Traumatic Brain Injury in Rats. CNS and Neurological Disorders - Drug Targets, 2013, 12, 413-425.	0.8	28
265	Immune and Genome Engineering as the Future of Transplantable Tissue. New England Journal of Medicine, 2021, 385, 2451-2462.	13.9	28
266	Solution fibre spinning technique for the fabrication of tuneable decellularised matrix-laden fibres and fibrous micromembranes. Acta Biomaterialia, 2018, 78, 111-122.	4.1	27
267	Primary tumor microRNA signature predicts recurrence and survival in patients with locally advanced esophageal adenocarcinoma. Oncotarget, 2016, 7, 81281-81291.	0.8	27
268	A skeletal muscle ventricle made from rectus abdominis muscle in the dog. Journal of Surgical Research, 1989, 46, 84-89.	0.8	26
269	Esophageal extracellular matrix hydrogel mitigates metaplastic change in a dog model of Barrettâ€™s esophagus. Science Advances, 2020, 6, eaba4526.	4.7	26
270	Extracellular matrix as a scaffold for tissue engineering in veterinary medicine: Applications to soft tissue healing. Clinical Techniques in Equine Practice, 2004, 3, 173-181.	0.6	25

#	Article	IF	Citations
271	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
272	A Rabbit Model of Peripheral Compartment Syndrome with Associated Rhabdomyolysis and a Regenerative Medicine Approach for Treatment. Tissue Engineering - Part C: Methods, 2011, 17, 631-640.	1.1	24
273	Host macrophage response to injectable hydrogels derived from ECM and Î±-helical peptides. Acta Biomaterialia, 2020, 111, 141-152.	4.1	24
274	A Novel Esophagealâ€preserving Approach to Treat Highâ€grade Dysplasia and Superficial Adenocarcinoma in the Presence of Chronic Gastroesophageal Reflux Disease. World Journal of Surgery, 2012, 36, 2390-2393.	0.8	23
275	Prevention of seroma formation with TissuGluÂ® surgical adhesive in a canine abdominoplasty model: Long term clinical and histologic studies. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2013, 66, 414-422.	0.5	23
276	Transoral Endoscopic Inner Layer Esophagectomy: Management of High-Grade Dysplasia and Superficial Cancer with Organ Preservation. Journal of Gastrointestinal Surgery, 2009, 13, 2104-2112.	0.9	22
277	Fetal extracellular matrix nerve wraps locally improve peripheral nerve remodeling after complete transection and direct repair in rat. Scientific Reports, 2018, 8, 4474.	1.6	22
278	A roadmap for promoting endogenous in situ tissue restoration using inductive bioscaffolds after acute brain injury. Brain Research Bulletin, 2019, 150, 136-149.	1.4	22
279	Breast Reconstruction Using a Three-Dimensional Absorbable Mesh Scaffold and Autologous Fat Grafting: A Composite Strategy Based on Tissue-Engineering Principles. Plastic and Reconstructive Surgery, 2020, 146, 409e-413e.	0.7	22
280	The effect of carbon dioxide, lidoflazine and deferoxamine upon long term survival following cardiorespiratory arrest in rats. Resuscitation, 1986, 13, 165-173.	1.3	21
281	Silver-doped bioactive glass particles for in vivo bone tissue regeneration and enhanced methicillin-resistant Staphylococcus aureus (MRSA) inhibition. Materials Science and Engineering C, 2021, 120, 111693.	3.8	21
282	ECM hydrogel improves the delivery of PEG microsphere-encapsulated neural stem cells and endothelial cells into tissue cavities caused by stroke. Brain Research Bulletin, 2021, 168, 120-137.	1.4	21
283	Bioengineering solutions for neural repair and recovery in stroke. Current Opinion in Neurology, 2013, 26, 626-631.	1.8	20
284	Effect of allopurinol and dimethylsulfoxide on long-term survival in rats after cardiorespiratory arrest and resuscitation. American Journal of Emergency Medicine, 1986, 4, 313-318.	0.7	19
285	Cardiac assistance with electrically stimulated skeletal muscle. Medical and Biological Engineering and Computing, 1989, 27, 159-162.	1.6	19
286	A histomorphologic study of the normal healing response following digit amputation in C57bl/6 and MRL/MpJ mice. Archives of Histology and Cytology, 2010, 73, 103-111.	0.2	19
287	Cardiac tissue development for delivery of embryonic stem cellâ€derived endothelial and cardiac cells in natural matrices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 2060-2072.	1.6	19
288	Regenerative medicine: todayâ€™s discoveries informing the future of medical practice. Npj Regenerative Medicine, 2016, 1, 16007.	2.5	19

#	Article	IF	Citations
289	Coagulation Disorders and Liver Disease. Veterinary Clinics of North America - Small Animal Practice, 1988, 18, 87-93.	0.5	18
290	Re-generation of tissue about an animal-based scaffold: AMS studies of the fate of the scaffold. Nuclear Instruments & Methods in Physics Research B, 2000, 172, 904-909.	0.6	18
291	The PediaFlowâ„¢ Pediatric Ventricular Assist Device. Pediatric Cardiac Surgery Annual, 2006, 9, 92-98.	0.5	18
292	Extracellular Matrix Membrane Induces Cementoblastic/Osteogenic Properties of Human Periodontal Ligament Stem Cells. Frontiers in Physiology, 2018, 9, 942.	1.3	18
293	Tissue response, macrophage phenotype, and intrinsic calcification induced by cardiovascular biomaterials: Can clinical regenerative potential be predicted in a rat subcutaneous implant model?. Journal of Biomedical Materials Research - Part A, 2022, 110, 245-256.	2.1	18
294	Identification of extractable growth factors from small intestinal submucosa. , 1997, 67, 478.		18
295	Elastic modulus of prepared canine jejunum, a new vascular graft material. Annals of Biomedical Engineering, 1993, 21, 727-733.	1.3	17
296	Thrombolysis vs. bleeding from hemostatic sites by a prourokinase mutant compared with tissue plasminogen activator. Journal of Thrombosis and Haemostasis, 2006, 4, 1559-1565.	1.9	17
297	Perspective: Work with, not against, biology. Nature, 2016, 540, S55-S55.	13.7	17
298	Looking Ahead to Engineering Epimorphic Regeneration of a Human Digit or Limb. Tissue Engineering - Part B: Reviews, 2016, 22, 251-262.	2.5	17
299	Ultrasonic cavitation to prepare ECM hydrogels. Acta Biomaterialia, 2020, 108, 77-86.	4.1	17
300	Congenital Multifocal Hemangiosarcoma in a Stillborn Calf. Veterinary Pathology, 1983, 20, 245-247.	0.8	16
301	Regenerative Medicine Approach to Heart Valve Replacement. Circulation, 2005, 111, 2715-2716.	1.6	16
302	The extracellular matrix as a biologic scaffold for tissue engineering. , 2008, , 121-143.		16
303	Mechanical characterization of adult stem cells from bone marrow and perivascular niches. Journal of Biomechanics, 2012, 45, 1280-1287.	0.9	16
304	Strategies for skeletal muscle tissue engineering: seed vs. soil. Journal of Materials Chemistry B, 2015, 3, 7881-7895.	2.9	16
305	Nitro-Oleic Acid (NO₂-OA) Release Enhances Regional Angiogenesis in a Rat Abdominal Wall Defect Model. Tissue Engineering - Part A, 2018, 24, 889-904.	1.6	16
306	Comparison of the host macrophage response to synthetic and biologic surgical meshes used for ventral hernia repair. Journal of Immunology and Regenerative Medicine, 2019, 3, 13-25.	0.2	16

#	Article	IF	Citations
307	Matrix-Bound Nanovesicles: The Effects of Isolation Method upon Yield, Purity, and Function. Tissue Engineering - Part C: Methods, 2020, 26, 528-540.	1.1	16
308	The comparative pathology of open chest vs. mechanical closed chest cardiopulmonary resuscitation in dogs. Resuscitation, 1986, 13, 249-264.	1.3	15
309	The Use of Electrically Stimulated Skeletal Muscle to Pump Blood. PACE - Pacing and Clinical Electrophysiology, 1990, 13, 344-362.	0.5	15
310	Esophagus and regenerative medicine. World Journal of Gastroenterology, 2012, 18, 6894.	1.4	15
311	Immunomodulatory matrix-bound nanovesicles mitigate acute and chronic pristane-induced rheumatoid arthritis. Npj Regenerative Medicine, 2022, 7, 13.	2.5	15
312	Simple canine model of arterial thrombosis with endothelial injury suitable for investigation of thrombolytic agents. Journal of Pharmacological Methods, 1988, 19, 293-304.	0.7	14
313	Enhancement of the thrombolytic efficacy of prourokinase by lys-plasminogen in a dog model of arterial thrombosis. Thrombosis Research, 1991, 62, 115-126.	0.8	14
314	Regenerative medicine: are we there yet?. Npj Regenerative Medicine, 2017, 2, 2.	2.5	14
315	Alarmins of the extracellular space. Seminars in Immunology, 2018, 38, 33-39.	2.7	14
316	Single cell sequencing analysis of lizard phagocytic cell populations and their role in tail regeneration. Journal of Immunology and Regenerative Medicine, 2020, 8, 100029.	0.2	14
317	Material Characterisation and Stratification of Conjunctival Epithelial Cells on Electrospun Poly(Îµ-Caprolactone) Fibres Loaded with Decellularised Tissue Matrices. Pharmaceutics, 2021, 13, 318.	2.0	14
318	Post-Stroke Timing of ECM Hydrogel Implantation Affects Biodegradation and Tissue Restoration. International Journal of Molecular Sciences, 2021, 22, 11372.	1.8	14
319	Mapping the acute time course of immune cell infiltration into an ECM hydrogel in a rat model of stroke using 19F MRI. Biomaterials, 2022, 282, 121386.	5.7	14
320	Polypropyleneâ€containing synthetic mesh devices in soft tissue repair: A metaâ€analysis. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 145-154.	1.6	13
321	An In Vivo Model System for Evaluation of the Host Response to Biomaterials. Methods in Molecular Biology, 2013, 1037, 3-25.	0.4	13
322	A comparison of suture retention strengths for three biomaterials. Medical Science Monitor, 2004, 10, PI1-5.	0.5	13
323	Comparison of three methods of electrical stimulation for converting skeletal muscle to a fatigue resistant power source suitable for cardiac assistance. Annals of Biomedical Engineering, 1990, 18, 239-250.	1.3	12
324	MicroRNA Signature Characterizes Primary Tumors That Metastasize in an Esophageal Adenocarcinoma Rat Model. PLoS ONE, 2015, 10, e0122375.	1.1	12

#	Article	IF	Citations
325	A-chain isozymes of recombinant and natural urokinases: Preparation, characterization, and their biochemical and fibrinolytic properties. Fibrinolysis, 1992, 6, 69-78.	0.5	11
326	Histopathologic host response to polypropyleneâ€based surgical mesh materials in a rat abdominal wall defect model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 709-717.	1.6	11
327	Lessons from developmental biology for regenerative medicine. Birth Defects Research Part C: Embryo Today Reviews, 2013, 99, 149-159.	3.6	11
328	Extracellular Matrix for Myocardial Repair. Advances in Experimental Medicine and Biology, 2018, 1098, 151-171.	0.8	11
329	The impact of sterilization upon extracellular matrix hydrogel structure and function. Journal of Immunology and Regenerative Medicine, 2018, 2, 11-20.	0.2	11
330	The challenge of stress incontinence and pelvic organ prolapse. Current Opinion in Urology, 2019, 29, 437-442.	0.9	11
331	An Assay to Quantify Chemotactic Properties of Degradation Products from Extracellular Matrix. Methods in Molecular Biology, 2013, 1202, 103-110.	0.4	10
332	Regenerative Medicine: lessons from Mother Nature. Regenerative Medicine, 2016, 11, 767-775.	0.8	10
333	Biologic Scaffolds Composed of Extracellular Matrix for Regenerative Medicine. , 2019, , 613-626.		10
334	4-Hydroxybutyrate Promotes Endogenous Antimicrobial Peptide Expression in Macrophages. Tissue Engineering - Part A, 2019, 25, 693-706.	1.6	10
335	The Use of an Electrically Activated Valve to Control Preload and Provide Maximal Muscle Blood Flow with a Skeletal-Muscle Ventricle. PACE - Pacing and Clinical Electrophysiology, 1990, 13, 783-795.	0.5	9
336	Natural Biomaterials for Regenerative Medicine Applications. , 2014, , 101-112.		9
337	Factors Which Affect the Host Response to Biomaterials. , 2015, , 1-12.		9
338	Sutureless nerve repair with ECM bioscaffolds and laserâ€activated chitosan adhesive. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1698-1711.	1.6	9
339	Optimizing the bolus/infusion ratio for intravenous administration of urokinase in dogs. Thrombosis Research, 1988, 50, 857-864.	0.8	8
340	Emerging Implications for Extracellular Matrix-Based Technologies in Vascularized Composite Allotransplantation. Stem Cells International, 2016, 2016, 1-16.	1.2	8
341	Extracellular Matrix as an Inductive Scaffold for Functional Tissue Reconstruction. , 2016, , 11-29.		8
342	Extracellular matrix proteins as temporary coating for thin-film neural implants. Journal of Neural Engineering, 2017, 14, 014001.	1.8	8

#	Article	IF	Citations
343	Acellular Biologic Scaffolds in Regenerative Medicine: Unacceptable Variability with Acceptable Results. Regenerative Engineering and Translational Medicine, 2019, 5, 414-419.	1.6	8
344	Extracellular matrix and the immune system: friends or foes. Nature Reviews Urology, 2019, 16, 389-390.	1.9	8
345	Modification of Natural Polymers. , 2002, , 505-514.		8
346	The Role of the Host Immune Response in Tissue Engineering and Regenerative Medicine. , 2014, , 497-509.		7
347	Role of 4-hydroxybutyrate in increased resistance to surgical site infections associated with surgical meshes. Biomaterials, 2021, 267, 120493.	5.7	7
348	Human Bronchial Epithelial Cell Growth on Homologous Versus Heterologous Tissue Extracellular Matrix. Journal of Surgical Research, 2021, 263, 215-223.	0.8	7
349	The effectiveness of postischemic oxypurinol administration upon myocardial function in the isolated rat heart. Resuscitation, 1988, 16, 31-43.	1.3	6
350	In Vivo Studies to Evaluate Tissue Engineering Techniques. Annals of the New York Academy of Sciences, 2002, 961, 302-304.	1.8	6
351	Human NELL1 Protein Augments Constructive Tissue Remodeling with Biologic Scaffolds. Cells Tissues Organs, 2013, 198, 249-265.	1.3	6
352	Extracellular Matrix as a Bioscaffold for Tissue Engineering. , 2014, , 149-175.		6
353	Biocompatibility and Immune Response to Biomaterials. , 2014, , 151-162.		6
354	The Influence of Extracellular RNA on Cell Behavior in Health, Disease, and Regeneration. Current Pathobiology Reports, 2017, 5, 13-22.	1.6	6
355	Properties of the Temporomandibular Joint in Growing Pigs. Journal of Biomechanical Engineering, 2018, 140, .	0.6	6
356	ECM Hydrogels for Regenerative Medicine. Pancreatic Islet Biology, 2018, , 27-58.	0.1	6
357	Extracellular Matrix Degradation Products Downregulate Neoplastic Esophageal Cell Phenotype. Tissue Engineering - Part A, 2019, 25, 487-498.	1.6	6
358	Extracellular Matrix Patches for Endarterectomy Repair. Frontiers in Cardiovascular Medicine, 2021, 8, 631750.	1.1	6
359	The effect of normal, metaplastic, and neoplastic esophageal extracellular matrix upon macrophage activation. Journal of Immunology and Regenerative Medicine, 2021, 13, 100037.	0.2	6
360	Inductive Remodeling of Extracellular Matrix Scaffolds in the Temporomandibular Joint of Pigs. Tissue Engineering - Part A, 2022, 28, 447-457.	1.6	6

#	Article	IF	Citations
361	Use of electrical impedance for continuous measurement of stroke volume of a skeletal muscle-powered cardiac assist device. Medical and Biological Engineering and Computing, 1991, 29, 207-211.	1.6	5
362	Preliminary results of deferoxamine and L1 treatment of spinal cord ischemia. Journal of Thoracic and Cardiovascular Surgery, 1995, 109, 1017-1019.	0.4	5
363	A panel data set on harvest and perfusion decellularization of porcine rectus abdominis. Data in Brief, 2016, 7, 1375-1382.	0.5	5
364	Host Response to Implanted Materials and Devices: An Overview. , 2017, , 1-14.		5
365	The Protective Effect of Heparin in a Dog Model of Rethrombosis Following Pharmacologic Thrombolysis. Thrombosis and Haemostasis, 1990, 64, 438-444.	1.8	5
366	Optical Biopsy Using a Neural Network to Predict Gene Expression From Photos of Wounds. Journal of Surgical Research, 2022, 270, 547-554.	0.8	5
367	Doppler Ultrasonic Detection of Particulate Release During Hemodialysis with Cellulose Hollow-Fiber and Sorbent Suspension Reciprocating Dialyzers. Artificial Organs, 1984, 8, 220-223.	1.0	4
368	Use of impedance ratio for the continuous measurement of stroke volume of a valveless pouch used as a cardiac-assist device. IEEE Transactions on Biomedical Engineering, 1992, 39, 310-313.	2.5	4
369	Tissue Engineering with Decellularized Tissues. , 2013, , 1316-1331.		4
370	Neuroprotective effects of collagen matrix in rats after traumatic brain injury. Restorative Neurology and Neuroscience, 2015, 33, 95-104.	0.4	4
371	Strategies for functional bioscaffold-based skeletal muscle reconstruction. Annals of Translational Medicine, 2015, 3, 256.	0.7	4
372	<scp>Adventitiaâ€derived</scp> extracellular matrix hydrogel enhances contractility of human vasa <scp>vasorumâ€derived</scp> pericytes via Î±₂Î²₁ integrin and <scp>TGFÎ²</scp> receptor. Journal of Biomedical Materials Research - Part A, 2022, 110, 1912-1920.	2.1	4
373	Naturally Occurring Scaffold Materials. , 2008, , 594-603.		3
374	Bioscaffold-mediated mucosal remodeling following short-segment colonic mucosal resection. Journal of Surgical Research, 2017, 218, 353-360.	0.8	3
375	Common Challenges in Tissue Regeneration. , 2019, , 217-229.		3
376	Assessing Porcine Liver-Derived Biomatrix for Hepatic Tissue Engineering. Tissue Engineering, 2004, 10, 1046-1053.	4.9	3
377	Transcriptomic Regulation of Macrophages by Matrix-Bound Nanovesicle-Associated Interleukin-33. Tissue Engineering - Part A, 2022, 28, 867-878.	1.6	3
378	The Beneficial Effect of Lys-Plasminogen upon the Thrombolytic Efficacy of Urokinase in a Dog Model of Peripheral Arterial Thrombosis. Pathophysiology of Haemostasis and Thrombosis: International Journal on Haemostasis and Thrombosis Research, 1991, 21, 278-285.	0.5	2

#	Article	IF	Citations
379	Invited Commentary. Annals of Thoracic Surgery, 2009, 87, 868.	0.7	2
380	Biological Scaffolds for Regenerative Medicine. , 2011, , 623-635.		2
381	A Rodent Model to Evaluate the Tissue Response to a Biological Scaffold When Adjacent to a Synthetic Material. Tissue Engineering - Part A, 2015, 21, 2526-2535.	1.6	2
382	Author Accountability in Biomedical Research. Stem Cells and Development, 2018, 27, 1671-1673.	1.1	2
383	Biologic Scaffold Materials for Orthopaedic Soft Tissue Reconstruction. , 2008, , 443-457.		2
384	Xenogeneic extracellular matrix as a scaffold for tissue reconstruction. , 2004, 12, 367-367.		2
385	Optimization of pulse train duration for the electrical stimulation of a skeletal muscle ventricle in the dog. Annals of Biomedical Engineering, 1990, 18, 467-478.	1.3	1
386	New Developments in Thrombolytic Therapy. Advances in Pharmacology, 1992, 23, 227-262.	1.2	1
387	In Vivo Assessment of a Biological Occluder for NOTES Gastrotomy Closure. Surgical Laparoscopy, Endoscopy and Percutaneous Techniques, 2014, 24, 322-326.	0.4	1
388	Models for evaluating the immune response to naturally derived biomaterials. Drug Discovery Today: Disease Models, 2017, 24, 5-11.	1.2	1
389	Scaffolds for skeletal muscle tissue engineering. , 2019, , 245-258.		1
390	Pancreas whole organ engineering. , 2020, , 527-536.		1
391	Targeting the host immune response for tissue engineering and regenerative medicine applications. , 2020, , 363-368.		1
392	Identification of extractable growth factors from small intestinal submucosa. , 1997, 67, 478.		1
393	Cardiac output and the extra-aortic balloon pump: a preliminary report. Medical and Biological Engineering and Computing, 1994, 32, 210-213.	1.6	0
394	DEVELOPMENT AND IN VIVO EVALUATION OF THE LEVITRONIX PEDIATRIC VAS. ASAIO Journal, 2006, 52, 34A.	0.9	0
395	Rheological Properties of Extracellular Matrix Derived Gels. , 2007, , 1027.		0
396	MMP AND VEGF REGULATION IN ENDOTHELIAL CELL-SEEDED UBM EXTRACELLULAR MATRIX IN A BIOREACTOR. Journal of Biomechanics, 2008, 41, S460.	0.9	0

#	Article	IF	Citations
397	Cardiovascular Regenerative Biology. Cells Tissues Organs, 2011, 195, 4.	1.3	0
398	Invited Commentary. Annals of Thoracic Surgery, 2012, 93, 1093.	0.7	0
399	Preparation of volumetric skeletal muscle whole organ acellular matrix to regenerate contractile, vascularized, innervated muscle in rodent and canine model. Journal of the American College of Surgeons, 2013, 217, S145.	0.2	0
400	Biological scaffolds for regenerative medicine. , 0, , 133-150.		0
401	2036 Extracellular matrix as a novel approach to glioma therapy. Journal of Clinical and Translational Science, 2018, 2, 11-12.	0.3	0
402	Lipids as regulators of inflammation and tissue regeneration. , 2021, , 175-193.		0
403	Development of a Novel Model System to Study Remodeling of ECM Scaffolds in Response to Cyclic Stretching. , 2003, , .		0
404	Antibacterial Activity within Degradation Products of Biological Scaffolds Composed of Extracellular Matrix. Tissue Engineering, 2006, .	4.9	0
405	Functional Tissue Reconstruction with the Use of Biologic Scaffolds. , 2010, , 223-239.		0
406	Regenerative Medicine and the Foreign Body Response. , 2011, , 353-375.		0
407	Neuromuscular Tissue Engineering. , 2014, , 1-24.		0
408	A liquid fraction of extracellular matrix inhibits glioma cell viability in vitro and in vivo. Oncotarget, 2022, 13, 426-438.	0.8	0
409	Continuous Microfiber Wire Mandrelâ€Less Biofabrication for Soft Tissue Engineering Applications. Advanced Healthcare Materials, 2022, , 2102613.	3.9	0