Engineering vascularized skeletal muscle tissue

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#	Paper	IF	Citations
1097	Engineering vascularized tissue. *Nature Biotechnology*, **2005**, 23, 821-3	44.5	600
1096	Biocontrol genome deciphered. *Nature Biotechnology*, **2005**, 23, 823-4	44.5	6
1095	Making a muscle. **2005**, 2, 566-566		
1094	Engineering blood vessels from stem cells: recent advances and applications. **2005**, 16, 516-23		62
1093	Polymeric Scaffolds for Stem Cell Growth. **2005**, 58, 689		6
1092	Conversion of embryonic stem cells into pancreatic beta-cell surrogates guided by ontogeny. **2006**, 1, 327-36		8
1091	Regulating activation of transplanted cells controls tissue regeneration. **2006**, 103, 2494-9		160
1090	Design and preparation of polymeric scaffolds for tissue engineering. **2006**, 3, 835-51		175
1089	Vascularized organoid engineered by modular assembly enables blood perfusion. **2006**, 103, 11461-6		313
1088	Endothelial cells assemble into a 3-dimensional prevascular network in a bone tissue engineering construct. **2006**, 12, 2685-93		278
1087	Mesenchymal stem cells enhance angiogenesis in mechanically viable prevascularized tissues via early matrix metalloproteinase upregulation. **2006**, 12, 2875-88		186
1086	Fabrication of cultured oral gingiva by tissue engineering techniques without materials of animal origin. **2006**, 77, 672-7		24
1085	Bioengineered cardiac cell sheet grafts have intrinsic angiogenic potential. **2006**, 341, 573-82		177
1084	Muscle regeneration by adipose tissue-derived adult stem cells attached to injectable PLGA spheres. **2006**, 348, 386-92		63
1083	Advanced tools for tissue engineering: scaffolds, bioreactors, and signaling. **2006**, 12, 3285-305		223
1082	Myoblast therapy: from bench to bedside. **2006**, 15, 455-62		15
1081	Future of regenerative medicine: challenges and hurdles. **2006**, 30, 828-34		28

1080	Thinking outside the dish. **2006**, 3, 1035-1043	9
1079	Capturing complex 3D tissue physiology in vitro. **2006**, 7, 211-24	1768
1078	Bioluminescent imaging: emerging technology for non-invasive imaging of bone tissue engineering. **2006**, 27, 1851-8	36
1077	Outgrowth endothelial cells isolated and expanded from human peripheral blood progenitor cells as a potential source of autologous cells for endothelialization of silk fibroin biomaterials. **2006**, 27, 5399-408	114
1076	A new approach to tissue engineering of vascularized skeletal muscle. **2006**, 10, 716-26	97
1075	Myocardial regeneration strategies using human embryonic stem cell-derived cardiomyocytes. **2006**, 116, 211-8	23
1074	Bioengineered muscle constructs and tissue-based therapy for cardiac disease. **2006**, 21, 167-171	2
1073	Using a Core–Sheath Distribution of Surface Chemistry through 3D Tissue Engineering Scaffolds to Control Cell Ingress. **2006**, 18, 1406-1410	85
1072	Engineering three-dimensional tissue structures using stem cells. **2006**, 420, 381-91	7
1071	Regenerative Medicine of Musculoskeletal Tissues. **2006**, 251-281	1
1070	Scaffolds for liver tissue engineering. **2006**, 3, 21-7	41
1069	Pulsatile myocardial tubes fabricated with cell sheet engineering. **2006**, 114, I87-93	101
1068	Heart muscle engineering: an update on cardiac muscle replacement therapy. **2006**, 71, 419-29	130
1067	Creation of engineered cardiac tissue in vitro from mouse embryonic stem cells. **2006**, 113, 2229-37	136
1066	Chapter 4 Challenges in Tissue Engineering. **2006**, 8, 423-462	2
1065	Principles of Regenerative Biology - Pages 325-369. **2007**, 325-369	
1064	Vascular progenitor cells isolated from human embryonic stem cells give rise to endothelial and smooth muscle like cells and form vascular networks in vivo. **2007**, 101, 286-94	204
1063	Effects of the mechanical properties of collagen gel on the in vitro formation of microvessel networks by endothelial cells. **2007**, 13, 1443-53	140

1062	Differentiation, survival, and function of embryonic stem cell derived endothelial cells for ischemic heart disease. **2007**, 116, I46-54	169
1061	Cell-based bone tissue engineering. **2007**, 4, e9	229
1060	Micro- and Nanofabricated Scaffolds. **2007**, 341-358	4
1059	Neurotization improves contractile forces of tissue-engineered skeletal muscle. **2007**, 13, 2813-21	56
1058	Mechanistic exploration of phthalimide neovascular factor 1 using network analysis tools. **2007**, 13, 2561-75	11
1057	Vascular tissue engineering and vascularized 3D tissue regeneration. **2007**, 2, 831-7	26
1056	An arteriovenous loop in a protected space generates a permanent, highly vascular, tissue-engineered construct. **2007**, 21, 511-22	146
1055	Transplantation of 3D scaffolds seeded with human embryonic stem cells: biological features of surrogate tissue and teratoma-forming potential. **2007**, 2, 289-300	60
1054	Microvessel-like structures from outgrowth endothelial cells from human peripheral blood in 2-dimensional and 3-dimensional co-cultures with osteoblastic lineage cells. **2007**, 13, 2577-88	136
1053	Cardiac tissue engineering in an in vivo vascularized chamber. **2007**, 115, 353-60	189
1052	Incorporation of Capillary-Like Structures into Dermal Cell Sheets Constructed by Magnetic Force-Based Tissue Engineering. **2007**, 40, 51-58	27
1051	Endothelial potential of human embryonic stem cells. **2007**, 110, 806-14	86
1050	In vivo vasculogenic potential of human blood-derived endothelial progenitor cells. **2007**, 109, 4761-8	410
1049	SIMPLE 3D VASCULARIZATION MODELS FOR PERFUSION BIOREACTORS. **2007**, 40, 175-180	
1048	Tissue Engineering. **2007**,	4
1047	From scrawny to brawny: the quest for neomusculogenesis; smart surfaces and scaffolds for muscle tissue engineering. **2007**, 4, 709-28	9
1046	Current state of the art in myocardial tissue engineering. **2007**, 13, 1825-36	53
1045	Tissue engineering approaches for the development of a contractile cardiac patch. **2007**, 3, 425-34	8

1044 A parametric study of human fibroblasts culture in a microchannel bioreactor. **2007**, 7, 611-7 58

1043 Peptide-mediated selective adhesion of smooth muscle and endothelial cells in microfluidic shear flow. **2007**, 23, 5050-5 112

1042 Three-dimensional perfusion culture of human adipose tissue-derived endothelial and osteoblastic progenitors generates osteogenic constructs with intrinsic vascularization capacity. **2007**, 25, 1823-9 165

1041 The roles of hypoxia in the in vitro engineering of tissues. **2007**, 13, 2153-62 213

1040 TERMIS-EU Meeting Abstracts London, UK September 4–7, 2007. **2007**, 13, 1633-1778 1

1039 Embryonic Stem Cells as a Cell Source for Tissue Engineering. **2007**, 445-458

1038 Breast Reconstruction. **2007**, 519-534

1037 Cardiac-Tissue Engineering. **2007**, 551-567 4

1036 Building Blood Vessels. 1712-1724

1035 Synthetic tissue biology: tissue engineering meets synthetic biology. **2007**, 81, 354-61 17

1034 Engineered blood and lymphatic capillaries in 3-D VEGF-fibrin-collagen matrices with interstitial flow. **2007**, 96, 167-76 107

1033 Cell patterning using magnetite nanoparticles and magnetic force. **2007**, 97, 1309-17 106

1032 Forced Soft Lithography (FSL): Production of Micro- and Nanostructures in Thin Freestanding Sheets of Chitosan Biopolymer. **2007**, 19, 3696-3701 11

1031 Tissue Engineering Based on Cell Sheet Technology. **2007**, 19, 3089-3099 312

1030 In vitro and in vivo differentiation of human umbilical cord derived stem cells into endothelial cells. **2007**, 100, 608-16 145

1029 The construction of 3D-engineered tissues composed of cells and extracellular matrices by hydrogel template approach. **2007**, 28, 2729-37 92

1028 Co-culture in cartilage tissue engineering. **2007**, 1, 170-8 111

1027 Ultra-rapid engineered collagen constructs tested in an in vivo nursery site. **2007**, 1, 192-8 44

1026	Influences of the recombinant artificial cell adhesive proteins on the behavior of human umbilical vein endothelial cells in serum-free culture. **2007**, 35, 247-57	6
1025	Embryonic stem cells for cardiac muscle engineering. **2007**, 17, 134-40	41
1024	Tissue engineering of vascularized cardiac muscle from human embryonic stem cells. **2007**, 100, 263-72	478
1023	Matrices and scaffolds for drug delivery in vascular tissue engineering. **2007**, 59, 360-73	73
1022	Micromechanical control of cell and tissue development: implications for tissue engineering. **2007**, 59, 1306-18	173
1021	Creation of myocardial tubes using cardiomyocyte sheets and an in vitro cell sheet-wrapping device. **2007**, 28, 3508-16	95
1020	Delivery of non-viral gene carriers from sphere-templated fibrin scaffolds for sustained transgene expression. **2007**, 28, 4705-16	91
1019	Growth, differentiation, transplantation and survival of human skeletal myofibers on biodegradable scaffolds. **2008**, 29, 75-84	73
1018	Endothelial cell colonization and angiogenic potential of combined nano- and micro-fibrous scaffolds for bone tissue engineering. **2008**, 29, 4306-13	154
1017	Spatially defined oxygen gradients and vascular endothelial growth factor expression in an engineered 3D cell model. **2008**, 65, 177-86	83
1016	[Regenerative medicine in head and neck reconstructive surgery]. **2008**, 56, 262-74	7
1015	Patterning Cell and Tissue Function. **2008**, 1, 15-23	20
1014	Biomaterials for bone tissue engineering. **2008**, 11, 18-25	801
1013	Biomaterials engineered for integration. **2008**, 11, 44-51	62
1012	Differentiation stage alters matrix control of stem cells. **2008**, 85, 145-56	76
1011	The response of human embryonic stem cell-derived endothelial cells to shear stress. **2008**, 100, 830-7	78
1010	Engineered microenvironments for human stem cells. **2008**, 84, 335-47	22
1009	Enhancement of In Vitro Capillary Tube Formation by Substrate Nanotopography. **2008**, 20, 99-103	151

1008	Advanced biomaterials for skeletal tissue regeneration: Instructive and smart functions. **2008**, 59, 38-71	174
1007	The effect of mesenchymal populations and vascular endothelial growth factor delivered from biodegradable polymer scaffolds on bone formation. **2008**, 29, 1892-900	122
1006	The influence of proepicardial cells on the osteogenic potential of marrow stromal cells in a three-dimensional tubular scaffold. **2008**, 29, 2203-16	26
1005	Cell based bone tissue engineering in jaw defects. **2008**, 29, 3053-61	158
1004	Comparison of reporter gene and iron particle labeling for tracking fate of human embryonic stem cells and differentiated endothelial cells in living subjects. **2008**, 26, 864-73	191
1003	Delivery of basic fibroblast growth factor from gelatin microsphere scaffold for the growth of human umbilical vein endothelial cells. **2008**, 14, 1939-47	44
1002	Controlled differentiation of stem cells. **2008**, 60, 199-214	261
1001	Spheroid-based engineering of a human vasculature in mice. **2008**, 5, 439-45	172
1000	Tissue engineering of functional skeletal muscle: challenges and recent advances. **2008**, 27, 109-13	59
999	Spatial and temporal patterns of bone formation in ectopically pre-fabricated, autologous cell-based engineered bone flaps in rabbits. **2008**, 12, 1238-49	26
998	Engineering tissue from human embryonic stem cells. **2008**, 12, 709-29	44
997	Use of a novel collagen matrix with oriented pore structure for muscle cell differentiation in cell culture and in grafts. **2008**, 12, 1640-8	117
996	Vascularization in tissue engineering. **2008**, 26, 434-41	890
995	The effect of matrix density on the regulation of 3-D capillary morphogenesis. **2008**, 94, 1930-41	204
994	Establishing a dynamic process for the formation, propagation, and differentiation of human embryoid bodies. **2008**, 17, 1227-41	80
993	Tissue Engineering. **2008**, 541-583	3
992	Bridging the regeneration gap: stem cells, biomaterials and clinical translation in bone tissue engineering. **2008**, 473, 124-31	142
991	Lymphoid tissue engineering: invoking lymphoid tissue neogenesis in immunotherapy and models of immunity. **2008**, 20, 137-46	35

990	Human embryonic stem cells for cardiomyogenesis. **2008**, 45, 462-74	43
989	Cell delivery mechanisms for tissue repair. **2008**, 2, 205-13	280
988	Tissue engineering by self-assembly of cells printed into topologically defined structures. **2008**, 14, 413-21	295
987	Three-dimensional cell culture matrices: state of the art. **2008**, 14, 61-86	790
986	Microfluidic depletion of endothelial cells, smooth muscle cells, and fibroblasts from heterogeneous suspensions. **2008**, 8, 462-72	61
985	Engineering the microcirculation. **2008**, 14, 87-103	117
984	Polymeric biomaterials in tissue engineering. **2008**, 63, 487-91	225
983	Porous Polycaprolactone/Polystyrene Semi-interpenetrating Polymer Networks Synthesized within High Internal Phase Emulsions. **2008**, 41, 1469-1474	70
982	Directed assembly of cell-laden microgels for fabrication of 3D tissue constructs. **2008**, 105, 9522-7	488
981	Integrating novel technologies to fabricate smart scaffolds. **2008**, 19, 543-72	168
980	The muscle stem cell niche: regulation of satellite cells during regeneration. **2008**, 14, 419-31	80
979	Endothelial cell-matrix interactions in neovascularization. **2008**, 14, 19-32	67
978	The influence of serum-free culture conditions on skeletal muscle differentiation in a tissue-engineered model. **2008**, 14, 161-71	42
977	Co-culture of primary neural progenitor and endothelial cells in a macroporous gel promotes stable vascular networks in vivo. **2008**, 19, 1469-85	19
976	Vascularization strategies in tissue engineering. **2008**, 761-780	
975	Engineering robust and functional vascular networks in vivo with human adult and cord blood-derived progenitor cells. **2008**, 103, 194-202	398
974	In vivo pulmonary tissue engineering: contribution of donor-derived endothelial cells to construct vascularization. **2008**, 14, 361-8	46
973	Stem cells and scaffolds for vascularizing engineered tissue constructs. **2009**, 114, 129-72	6

972	Small blood vessel engineering. **2007**, 140, 183-95	18
971	Genetic Approaches in Human Embryonic Stem Cells and Their Derivatives. **2008**, 190-209	
970	Endothelial stem cells and precursors for tissue engineering: cell source, differentiation, selection, and application. **2008**, 14, 133-47	81
969	In vivo commitment and functional tissue regeneration using human embryonic stem cell-derived mesenchymal cells. **2008**, 105, 20641-6	223
968	Tissue engineered bone grafts: biological requirements, tissue culture and clinical relevance. **2008**, 3, 254-64	234
967	Characterization of human myoblast cultures for tissue engineering. **2008**,	2
966	Cell nutrition. **2008**, 327-362	5
965	Tissue engineering of bone. **2008**, 559-610	18
964	Tissue engineering an introduction. **2008**, xii-xxxvi	7
963	Vascular Assembly in Engineered and Natural Tissues. **2008**, 1020-1037	2
962	Gene therapy in the management of erectile dysfunction (ED): past, present, and future. **2009**, 9, 846-54	11
961	Advances in myogenic cell transplantation and skeletal muscle tissue engineering. **2009**, 14, 3012-23	13
960	Engineering orthopedic tissue interfaces. **2009**, 15, 127-41	224
959	Prevascularization of cardiac patch on the omentum improves its therapeutic outcome. **2009**, 106, 14990-5	282
958	Transport-mediated angiogenesis in 3D epithelial coculture. **2009**, 23, 2155-64	158
957	Essential environmental cues from the satellite cell niche: optimizing proliferation and differentiation. **2009**, 296, C1338-45	103
956	Physiological function and transplantation of scaffold-free and vascularized human cardiac muscle tissue. **2009**, 106, 16568-73	349
955	Vascularization--the conduit to viable engineered tissues. **2009**, 15, 159-69	242

954	In vitro 3D model for human vascularized adipose tissue. **2009**, 15, 2227-36	107
953	Effect of scaffold stiffness on myoblast differentiation. **2009**, 15, 935-44	99
952	Influence of endothelial progenitor cells and platelet gel on tissue-engineered bone ectopically in goats. **2009**, 15, 3669-77	30
951	Fate of endothelialized modular constructs implanted in an omental pouch in nude rats. **2009**, 15, 2875-87	15
950	Effect of VEGF on the regenerative capacity of muscle stem cells in dystrophic skeletal muscle. **2009**, 17, 1788-98	132
949	Reclaiming a natural beauty: whole-organ engineering with natural extracellular materials. **2009**, 4, 747-58	17
948	In vivo engineering of a human vasculature for bone tissue engineering applications. **2009**, 13, 3380-6	58
947	Endothelial differentiation of Wharton© jelly-derived mesenchymal stem cells in comparison with bone marrow-derived mesenchymal stem cells. **2009**, 37, 629-40	219
946	Preparation of artificial skeletal muscle tissues by a magnetic force-based tissue engineering technique. **2009**, 108, 538-43	66
945	Tissue engineering using laminar cellular assemblies. **2009**, 21, 3404-9	41
944	Microfabricated poly(ethylene glycol) templates enable rapid screening of triculture conditions for cardiac tissue engineering. **2009**, 89, 616-31	77
943	In vitro cell infiltration and in vivo cell infiltration and vascularization in a fibrous, highly porous poly(D,L-lactide) scaffold fabricated by cryogenic electrospinning technique. **2009**, 91, 231-40	148
942	Modeling the adhesion of human embryonic stem cells to poly(lactic-co-glycolic acid) surfaces in a 3D environment. **2010**, 92, 683-92	9
941	VEGF-E enhances endothelialization and inhibits thrombus formation on polymeric surfaces. **2010**, 93, 77-85	8
940	Alignment of skeletal muscle myoblasts and myotubes using linear micropatterned surfaces ground with abrasives. **2009**, 103, 631-8	80
939	Vascular engineering using human embryonic stem cells. **2009**, 25, 2-9	44
938	Contribution of outgrowth endothelial cells from human peripheral blood on in vivo vascularization of bone tissue engineered constructs based on starch polycaprolactone scaffolds. **2009**, 30, 526-34	164
937	Dynamic processes involved in the pre-vascularization of silk fibroin constructs for bone regeneration using outgrowth endothelial cells. **2009**, 30, 1329-38	133

936	Computational design of drainage systems for vascularized scaffolds. **2009**, 30, 4435-43	22
935	Fabrication of complex three-dimensional tissue architectures using a magnetic force-based cell patterning technique. **2009**, 11, 713-21	45
934	A microperfused incubator for tissue mimetic 3D cultures. **2009**, 11, 1155-65	35
933	3D microfabricated bioreactor with capillaries. **2009**, 11, 1309-15	28
932	Bone marrow derived pluripotent cells are pericytes which contribute to vascularization. **2009**, 5, 437-45	56
931	Cardiac tissue engineering: implications for pediatric heart surgery. **2009**, 30, 716-23	58
930	Spatiotemporal tracking of cells in tissue-engineered cardiac organoids. **2009**, 3, 196-207	30
929	Current opportunities and challenges in skeletal muscle tissue engineering. **2009**, 3, 407-15	129
928	Impaired in vivo vasculogenic potential of endothelial progenitor cells in comparison to human umbilical vein endothelial cells in a spheroid-based implantation model. **2009**, 42, 498-505	39
927	The promotion of the vascularization of decalcified bone matrix in vivo by rabbit bone marrow mononuclear cell-derived endothelial cells. **2009**, 30, 3560-6	19
926	Tissue assembly and organization: developmental mechanisms in microfabricated tissues. **2009**, 30, 4851-8	107
925	Human microvasculature fabrication using thermal inkjet printing technology. **2009**, 30, 6221-7	518
924	Oxygen generating scaffolds for enhancing engineered tissue survival. **2009**, 30, 757-62	206
923	Scaffold-free vascular tissue engineering using bioprinting. **2009**, 30, 5910-7	996
922	Biomimetic approach to tissue engineering. **2009**, 20, 665-73	114
921	Update on therapeutic vascularization strategies. **2009**, 4, 65-80	108
920	Supply of nutrients to cells in engineered tissues. **2010**, 26, 163-78	98
919	A conversation with Robert Langer: pioneering biomedical scientist and engineer. Interview by Paul S. Weiss. **2009**, 3, 756-61	4

918	A home away from home: challenges and opportunities in engineering in vitro muscle satellite cell niches. **2009**, 78, 185-94	98
917	Pharmacologically induced angiogenesis in transgenic zebrafish. **2009**, 378, 766-71	48
916	Preview. Mending the failing heart with a vascularized cardiac patch. **2009**, 5, 575-6	12
915	Mathematical modelling of tissue-engineered angiogenesis. **2009**, 221, 101-20	28
914	Electrospinning thermoplastic polyurethane-contained collagen nanofibers for tissue-engineering applications. **2009**, 20, 1513-36	36
913	Growth factors, matrices, and forces combine and control stem cells. **2009**, 324, 1673-7	2065
912	A 3D hybrid model for tissue growth: the interplay between cell population and mass transport dynamics. **2009**, 97, 401-14	35
911	Prevascularization of a fibrin-based tissue construct accelerates the formation of functional anastomosis with host vasculature. **2009**, 15, 1363-71	238
910	The use of endothelial progenitor cells for prevascularized bone tissue engineering. **2009**, 15, 2015-27	98
909	Vascularization strategies for tissue engineering. **2009**, 15, 353-70	642
908	Inosculation: connecting the life-sustaining pipelines. **2009**, 15, 455-65	113
907	Induced endothelial cells enhance osteogenesis and vascularization of mesenchymal stem cells. **2009**, 190, 185-93	25
906	Biology of Stem Cells and the Molecular Basis of the Stem State. **2009**,	15
905	Development and progress of engineering of skeletal muscle tissue. **2009**, 15, 319-31	71
904	Angiogenic capacity of human adipose-derived stromal cells during adipogenic differentiation: an in vitro study. **2009**, 15, 445-52	39
903	In vivo engineering of tissues: Biological considerations, challenges, strategies, and future directions. **2009**, 21, 3246-54	45
902	Applications and Degradation of Proteins Used as Tissue Engineering Materials. **2009**, 2, 613-635	37
901	Improving biomaterials in tendon and muscle regeneration. **2009**, 237-251	

900	The basic science of vascular biology: implications for the practicing surgeon. **2010**, 126, 1528-1538	36
899	Strategies for Vascularization of Polymer Scaffolds. **2010**, 58, 838-844	31
898	Prevascular structures promote vascularization in engineered human adipose tissue constructs upon implantation. **2010**, 19, 1007-20	58
897	Tissue engineering in plastic surgery: a review. **2010**, 126, 858-868	25
896	Biomaterial Applications in the Adult Skeletal Muscle Satellite Cell Niche: Deliberate Control of Muscle Stem Cells and Muscle Regeneration in the Aged Niche. **2010**, 275-308	1
895	HYBRID BIOMATERIALS FOR ENGINEERING VASCULAR TISSUES. **2010**, 373-387	1
894	Gene therapy used for tissue engineering applications. **2007**, 59, 329-50	39
893	Polymer Scaffolds for Biomaterials Applications. **2010**, 43, 581-591	372
892	Effects of the architecture of tissue engineering scaffolds on cell seeding and culturing. **2010**, 6, 4208-17	275
891	Quantitative analysis of cell tracing by in vivo imaging system. **2010**, 30, 541-5	3
890	Facile control of porous structures of polymer microspheres using an osmotic agent for pulmonary delivery. **2010**, 146, 61-7	92
889	Controlling physiological angiogenesis by hypoxia-induced signaling. **2010**, 146, 309-17	21
888	Engineered heart tissue graft derived from somatic cell nuclear transferred embryonic stem cells improve myocardial performance in infarcted rat heart. **2010**, 14, 2771-9	11
887	Engineering skeletal muscle tissue--new perspectives in vitro and in vivo. **2010**, 14, 2622-9	65
886	Modeling of flow-induced shear stress applied on 3D cellular scaffolds: Implications for vascular tissue engineering. **2010**, 105, 645-54	55
885	Influence of substrate stiffness on the phenotype of heart cells. **2010**, 105, 1148-60	252
884	Adipose tissue-derived progenitors for engineering osteogenic and vasculogenic grafts. **2010**, 225, 348-53	66
883	Investigation of medium perfusion through scaffold-free tissue constructs using endothelial cell-covered spheroids in vitro. **2010**, 50, 116-121	8

882	Effects of a combined mechanical stimulation protocol: Value for skeletal muscle tissue engineering. **2010**, 43, 1514-21	68
881	Biomimetic hydrogels with pro-angiogenic properties. **2010**, 31, 3840-7	286
880	Dense type I collagen matrices that support cellular remodeling and microfabrication for studies of tumor angiogenesis and vasculogenesis in vitro. **2010**, 31, 8596-607	243
879	Influence of polymer content in Ca-deficient hydroxyapatite-polycaprolactone nanocomposites on the formation of microvessel-like structures. **2010**, 6, 3169-77	23
878	Vascular differentiation of bone marrow stem cells is directed by a tunable three-dimensional matrix. **2010**, 6, 3395-403	71
877	The effect of the delivery of vascular endothelial growth factor and bone morphogenic protein-2 to osteoprogenitor cell populations on bone formation. **2010**, 31, 1242-50	186
876	Genetically engineered angiogenic cell sheets using magnetic force-based gene delivery and tissue fabrication techniques. **2010**, 31, 1251-9	84
875	Design of prevascularized three-dimensional cell-dense tissues using a cell sheet stacking manipulation technology. **2010**, 31, 1646-54	257
874	Engineering of capillary-like structures in tissue constructs by electrochemical detachment of cells. **2010**, 31, 2209-15	58
873	Pre-vascularization of in vitro three-dimensional tissues created by cell sheet engineering. **2010**, 31, 3903-9	194
872	Preparation and characterization of coaxial electrospun thermoplastic polyurethane/collagen compound nanofibers for tissue engineering applications. **2010**, 79, 315-25	147
871	Isolation, differentiation and characterization of vascular cells derived from human embryonic stem cells. **2010**, 5, 1115-26	78
870	Vascularization shaping the heart. **2010**, 1188, 46-51	23
869	Strategies in cardiac tissue engineering. **2010**, 80, 683-93	28
868	Tissue Equivalents Based on Cell-Seeded Biodegradable Microfluidic Constructs. **2010**, 3, 1833-1844	12
867	Intramyocardial fibroblast myocyte communication. **2010**, 106, 47-57	251
866	Tissue-engineered vascular adventitia with vasa vasorum improves graft integration and vascularization through inosculation. **2010**, 16, 2617-26	37
865	The correlation between the internal structure and vascularization of controllable porous bioceramic materials in vivo: a quantitative study. **2010**, 16, 3791-803	120

864	3-dimensional structures to enhance cell therapy and engineer contractile tissue. **2010**, 18, 188-98	23
863	Engineered vascularized bone grafts. **2010**, 107, 3311-6	187
862	Rapid anastomosis of endothelial progenitor cell-derived vessels with host vasculature is promoted by a high density of cotransplanted fibroblasts. **2010**, 16, 585-94	160
861	Transplantation of a tissue-engineered human vascularized cardiac muscle. **2010**, 16, 115-25	197
860	Complex temporal regulation of capillary morphogenesis by fibroblasts. **2010**, 299, C444-53	41
859	Implanted myoblast survival is dependent on the degree of vascularization in a novel delayed implantation/prevascularization tissue engineering model. **2010**, 16, 165-78	37
858	Regenerative Medicine. **2010**, 58, 849-858	23
857	[Skeletal muscle tissue engineering--current concepts and future perspectives]. **2010**, 42, 354-9	6
856	Biomaterials and mesenchymal stem cells for regenerative medicine. **2010**, 4, 1-22	73
855	Adult human bone marrow- and adipose tissue-derived stromal cells support the formation of prevascular-like structures from endothelial cells in vitro. **2010**, 16, 101-14	90
854	The role of endothelial progenitor cells in prevascularized bone tissue engineering: development of heterogeneous constructs. **2010**, 16, 2355-67	80
853	In vitro and in vivo bioluminescent imaging of hypoxia in tissue-engineered grafts. **2010**, 16, 479-85	16
852	Sonic hedgehog promotes angiogenesis and osteogenesis in a coculture system consisting of primary osteoblasts and outgrowth endothelial cells. **2010**, 16, 1235-7	54
851	Cranial bone defects: current and future strategies. **2010**, 29, E8	138
850	Liver tissue engineering: promises and prospects of new technology. **2010**, 12, 349-60	10
849	Biomaterials as Stem Cell Niche: Cardiovascular Stem Cells. **2010**, 173-193	
848	Creating Unique Cell Microenvironments for the Engineering of a Functional Cardiac Patch. **2010**, 81-94	
847	Outgrowth endothelial cells: sources, characteristics and potential applications in tissue engineering and regenerative medicine. **2010**, 123, 201-17	19

846	Designing Nanofibrous Scaffolds for Tissue Engineering. **2010**, 435-497	4
845	Recent trends and challenges in complex organ manufacturing. **2010**, 16, 189-97	85
844	Functional muscle regeneration with combined delivery of angiogenesis and myogenesis factors. **2010**, 107, 3287-92	321
843	Scaffold vascularization: a challenge for three-dimensional tissue engineering. **2010**, 17, 3944-67	92
842	Geometrically controlled endothelial tubulogenesis in micropatterned gels. **2010**, 16, 2255-63	127
841	Development of thick and highly cell-incorporated engineered tissues by hydrogel template approach with basic fibroblast growth factor or ascorbic acid. **2010**, 21, 415-28	2
840	Tissue engineering by self-assembly and bio-printing of living cells. **2010**, 2, 022001	434
839	Possibilities for an in vitro meat production system. **2010**, 11, 13-22	133
838	Dynamics of bone marrow-derived endothelial progenitor cell/mesenchymal stem cell interaction in co-culture and its implications in angiogenesis. **2010**, 400, 284-91	145
837	Meet the new meat: tissue engineered skeletal muscle. **2010**, 21, 59-66	68
836	Umbilical cord-derived mesenchymal stem cells isolated by a novel explantation technique can differentiate into functional endothelial cells and promote revascularization. **2010**, 19, 1511-22	40
835	Engineering blood vessels using stem cells: innovative approaches to treat vascular disorders. **2010**, 8, 1433-45	27
834	Regeneration of the articular surface of the rabbit synovial joint by cell homing: a proof of concept study. **2010**, 376, 440-8	481
833	The Future? Craniofacial Skeletal Muscle Engineering as an Aid for the Management of Craniofacial Deformities. **2010**, 16, 153-162	3
832	Xenogeneic extracellular matrix as an inductive scaffold for regeneration of a functioning musculotendinous junction. **2010**, 16, 3309-17	150
831	Human endothelial stem/progenitor cells, angiogenic factors and vascular repair. **2010**, 7 Suppl 6, S731-51	49
830	Cell and Organ Printing. **2010**,	8
829	Principles of biomimetic vascular network design applied to a tissue-engineered liver scaffold. **2010**, 16, 1469-77	35

828	Biomaterials as Stem Cell Niche. **2010**,	1
827	Bioreactor Systems for Tissue Engineering II. **2010**,	1
826	Soft substrates drive optimal differentiation of human healthy and dystrophic myotubes. **2010**, 2, 193-201	52
825	The therapeutic potential of engineered human neovessels for cell-based gene therapy. **2011**, 11, 67-76	5
824	A tissue-engineered muscle repair construct for functional restoration of an irrecoverable muscle injury in a murine model. **2011**, 17, 2291-303	127
823	Growth of engineered human myocardium with mechanical loading and vascular coculture. **2011**, 109, 47-59	512
822	An agent-based model for the investigation of neovascularization within porous scaffolds. **2011**, 17, 2133-41	78
821	Characterization and modulation of fibroblast/endothelial cell co-cultures for the in vitro preformation of three-dimensional tubular networks. **2011**, 35, 1097-110	34
820	Design of nano- and microfiber combined scaffolds by electrospinning of collagen onto starch-based fiber meshes: a man-made equivalent of natural extracellular matrix. **2011**, 17, 463-73	51
819	Hypoxia promotes proliferation of human myogenic satellite cells: a potential benefactor in tissue engineering of skeletal muscle. **2011**, 17, 1747-58	36
818	Tissue engineering using magnetite nanoparticles. **2011**, 104, 355-95	52
817	Organ Printing. **2011**, 587-606	5
816	Tissue Engineering. **2011**, 175-211	3
815	Tissue Engineering in Regenerative Medicine. **2011**,	5
814	Regenerating the Heart. **2011**,	1
813	Mechanoregulation of vascularization in aligned tissue-engineered muscle: a role for vascular endothelial growth factor. **2011**, 17, 2857-65	46
812	Biophysical Regulation of Vascular Differentiation and Assembly. **2011**,	
811	The dynamic glycome microenvironment and stem cell differentiation into vasculature. **2011**, 20, 749-58	8

810	Myocardial Tissue Engineering. **2011**,	2
809	Tissue Engineering of Muscle Tissue. **2011**, 345-359	4
808	In vivo and in vitro tracking of erosion in biodegradable materials using non-invasive fluorescence imaging. **2011**, 10, 704-9	286
807	Genetic Approaches in Human Embryonic Stem Cells and their Derivatives: Prospects for Regenerative Medicine. **2011**, 179-198	
806	Three-dimensional biomaterials for the study of human pluripotent stem cells. **2011**, 8, 731-6	187
805	Materials for engineering vascularized adipose tissue. **2011**, 20, 37-48	23
804	Human embryonic stem cell-derived vascular smooth muscle cells in therapeutic neovascularisation. **2011**, 51, 651-64	42
803	Assessing the permeability of engineered capillary networks in a 3D culture. **2011**, 6, e22086	49
802	Engineering 3D cell instructive microenvironments by rational assembly of artificial extracellular matrices and cell patterning. **2011**, 3, 1102-11	47
801	Vascularization of three-dimensional collagen hydrogels using ultrasound standing wave fields. **2011**, 37, 1853-64	37
800	Advances in cell transplantation therapy for diseased myocardium. **2011**, 2011, 679171	3
799	Mesenchymal Stem Cells in Combination with Scaffolds for Bone Tissue Engineering. **2011**, 4, 1793-1804	15
798	Cell-Based Therapies and Tissue Engineering in Heart Failure. **2011**, 742-752	
797	Tissue Engineering of Skeletal Muscle. **2011**,	1
796	Controlled activation of morphogenesis to generate a functional human microvasculature in a synthetic matrix. **2011**, 118, 804-15	145
795	Engineered blood vessel networks connect to host vasculature via wrapping-and-tapping anastomosis. **2011**, 118, 4740-9	101
794	First implantable device for hypoxia-mediated angiogenic induction. **2011**, 153, 217-24	22
793	Regenerative medicine. **2011**, 48, 148-212	29

792	Engineering vessel-like networks within multicellular fibrin-based constructs. **2011**, 32, 7856-69	159
791	The creation of an in vitro adipose tissue that contains a vascular-adipocyte complex. **2011**, 32, 9667-76	30
790	Tissue Engineering of Blood Vessels: How to Make a Graft. **2011**, 395-430	
789	Human endothelial colony forming cells undergo vasculogenesis within biphasic calcium phosphate bone tissue engineering constructs. **2011**, 7, 4222-8	22
788	Strategies for tissue engineering cardiac constructs to affect functional repair following myocardial infarction. **2011**, 4, 575-91	45
787	Prospectus of cultured meat□dvancing meat alternatives. **2011**, 48, 125-140	85
786	Application of microtechnologies for the vascularization of engineered tissues. **2011**, 3, 24	11
785	Interaction between electrical stimulation, protein coating and matrix elasticity: a complex effect on muscle fibre maturation. **2011**, 5, 60-8	16
784	Characterization of electrospun poly(L-lactide) and gold nanoparticle composite scaffolds for skeletal muscle tissue engineering. **2011**, 5, 560-8	86
783	Reconstructing the differentiation niche of embryonic stem cells using biomaterials. **2011**, 11, 36-49	58
782	Biomimetic Materials for Bone Tissue Engineering □State of the Art and Future Trends. **2011**, 13, B135-B150	45
781	Rapid construction of three-dimensional multilayered tissues with endothelial tube networks by the cell-accumulation technique. **2011**, 23, 3506-10	203
780	The use of whole organ decellularization for the generation of a vascularized liver organoid. **2011**, 53, 604-17	480
779	Individual-based modelling of angiogenesis inside three-dimensional porous biomaterials. **2011**, 103, 372-83	10
778	Culture media for the differentiation of mesenchymal stromal cells. **2011**, 7, 463-77	189
777	Endothelial cells guided by immobilized gradients of vascular endothelial growth factor on porous collagen scaffolds. **2011**, 7, 3027-35	67
776	Engineering of large osteogenic grafts with rapid engraftment capacity using mesenchymal and endothelial progenitors from human adipose tissue. **2011**, 32, 5801-9	83
775	Efficacy of engineered FVIII-producing skeletal muscle enhanced by growth factor-releasing co-axial electrospun fibers. **2011**, 32, 1669-77	54

774	Homing of endogenous stem/progenitor cells for in situ tissue regeneration: Promises, strategies, and translational perspectives. **2011**, 32, 3189-209	275
773	Hypoxia-inducible vascular endothelial growth factor-engineered mesenchymal stem cells prevent myocardial ischemic injury. **2011**, 19, 741-50	71
772	Microfluidic devices for studying heterotypic cell-cell interactions and tissue specimen cultures under controlled microenvironments. **2011**, 5, 13406	108
771	Biphasic electrical field stimulation aids in tissue engineering of multicell-type cardiac organoids. **2011**, 17, 1465-77	76
770	Perfusion systems that minimize vascular volume fraction in engineered tissues. **2011**, 5, 22201	12
769	Aqueous biphasic microprinting approach to tissue engineering. **2011**, 5, 13404	18
768	Developing vasculature and stroma in engineered human myocardium. **2011**, 17, 1219-28	54
767	Functional neovascularization in tissue engineering with porcine acellular dermal matrix and human umbilical vein endothelial cells. **2011**, 17, 423-33	41
766	Uniaxial cyclic strain drives assembly and differentiation of skeletal myocytes. **2011**, 17, 2543-50	41
765	Enhanced neovascular formation in a novel hydrogel matrix consisting of citric Acid and collagen. **2011**, 4, 196-203	1
764	Cardiac Tissue. **2011**, 877-909	
763	The Digit. **2011**, 1091-1103	
762	Craniomaxillofacial reconstruction using allotransplantation and tissue engineering: challenges, opportunities, and potential synergy. **2011**, 67, 655-61	22
761	Improved vascular organization enhances functional integration of engineered skeletal muscle grafts. **2011**, 108, 14789-94	149
760	Accelerating vascularization in polycaprolactone scaffolds by endothelial progenitor cells. **2011**, 17, 1819-30	45
759	Chimeric vessel tissue engineering driven by endothelialized modules in immunosuppressed Sprague-Dawley rats. **2011**, 17, 151-60	27
758	Stochastic modeling and identification of emergent behaviors of an Endothelial Cell population in angiogenic pattern formation. **2011**, 30, 659-677	15
757	Tissue-Engineering Hollow Noncardiac Intrathoracic Organs: State-of-the-Art 2010. **2011**, 509-527	1

756	Airway tissue engineering. **2011**, 11, 1623-35	36
755	A new approach of in vivo musculoskeletal tissue engineering using the epigastric artery as central core vessel of a 3-dimensional construct. **2012**, 2012, 510852	1
754	ADDITION OF CONDUCTIVE ELEMENTS TO POLYMERIC SCAFFOLDS FOR MUSCLE TISSUE ENGINEERING. **2012**, 02, 1230011	4
753	Concise review: stem cell therapy for muscular dystrophies. **2012**, 1, 833-42	24
752	Sonic Hedgehog-activated engineered blood vessels enhance bone tissue formation. **2012**, 109, 4413-8	50
751	Perfusable branching microvessel bed for vascularization of engineered tissues. **2012**, 109, E3414-23	135
750	Multipotent vasculogenic pericytes from human pluripotent stem cells promote recovery of murine ischemic limb. **2012**, 125, 87-99	173
749	Smooth muscle and other cell sources for human blood vessel engineering. **2012**, 195, 15-25	26
748	Stem cell-derived vascular endothelial cells and their potential application in regenerative medicine. **2012**, 195, 41-7	18
747	Facile synthesis of radial-like macroporous superparamagnetic chitosan spheres with in-situ co-precipitation and gelation of ferro-gels. **2012**, 7, e49329	19
746	Biofabrication enables efficient interrogation and optimization of sequential culture of endothelial cells, fibroblasts and cardiomyocytes for formation of vascular cords in cardiac tissue engineering. **2012**, 4, 035002	27
745	Thermal inkjet printing in tissue engineering and regenerative medicine. **2012**, 6, 149-55	347
744	Combined mesenchymal stem cell sheets and rhBMP-2-releasing calcium sulfate-rhBMP-2 scaffolds for segmental bone tissue engineering. **2012**, 21, 693-705	20
743	Comparing scaffold-free and fibrin-based adipose-derived stromal cell constructs for adipose tissue engineering: an in vitro and in vivo study. **2012**, 21, 2283-97	19
742	Bone tissue engineering: recent advances and challenges. **2012**, 40, 363-408	1340
741	In vitro microvessels for the study of angiogenesis and thrombosis. **2012**, 109, 9342-7	657
740	Building vascular networks. **2012**, 4, 160ps23	175
739	Bioactive polymer scaffold for fabrication of vascularized engineering tissue. **2012**, 15, 215-24	26

738	Tissue engineering in the development of replacement technologies. **2012**, 745, 47-57	2
737	Effect of adipose tissue-derived osteogenic and endothelial cells on bone allograft osteogenesis and vascularization in critical-sized calvarial defects. **2012**, 18, 1552-61	43
736	Additive manufacturing of tissues and organs. **2012**, 37, 1079-1104	841
735	Instructive nanofiber scaffolds with VEGF create a microenvironment for arteriogenesis and cardiac repair. **2012**, 4, 146ra109	115
734	Comparison of different fabrication techniques for human adipose tissue engineering in severe combined immunodeficient mice. **2012**, 36, 227-37	24
733	Bio-hybrid muscle cell-based actuators. **2012**, 14, 987-98	72
732	Longitudinal in vivo imaging to assess blood flow and oxygenation in implantable engineered tissues. **2012**, 18, 697-709	40
731	Construction of vascularized cardiac tissue from genetically modified mouse embryonic stem cells. **2012**, 31, 204-12	11
730	Enhancement of tibial regeneration in a rat model by adipose-derived stromal cells in a PLGA scaffold. **2012**, 51, 313-23	24
729	Bone tissue engineering: current strategies and techniques--part II: Cell types. **2012**, 18, 258-69	67
728	Microvascular repair: post-angiogenesis vascular dynamics. **2012**, 19, 676-95	34
727	A silk-based scaffold platform with tunable architecture for engineering critically-sized tissue constructs. **2012**, 33, 9214-24	101
726	Prefabrication of vascularized bone grafts using a combination of bone marrow mesenchymal stem cells and vascular bundles with Ɛtricalcium phosphate ceramics. **2012**, 114, S153-9	5
725	Engineering muscle tissues on microstructured polyelectrolyte multilayer films. **2012**, 18, 1664-76	34
724	Muscle repair and regeneration: stem cells, scaffolds, and the contributions of skeletal muscle to amphibian limb regeneration. **2013**, 367, 133-59	16
723	VEGF improves skeletal muscle regeneration after acute trauma and reconstruction of the limb in a rabbit model. **2012**, 470, 3607-14	35
722	Regenerative Therapies for Musculoskeletal Tissues. **2012**, 355-392	3
721	Engineering dextran-based scaffolds for drug delivery and tissue repair. **2012**, 7, 1771-84	105

720	Isolation and maintenance-free culture of contractile myotubes from Manduca sexta embryos. **2012**, 7, e31598	22
719	Vascularization in the Bone Repair. **2012**,	5
718	Microvascular guidance: a challenge to support the development of vascularised tissue engineering construct. **2012**, 2012, 201352	19
717	Oxygen diffusion through collagen scaffolds at defined densities: implications for cell survival in tissue models. **2012**, 6, 77-84	61
716	Biomimetic poly(ethylene glycol)-based hydrogels as scaffolds for inducing endothelial adhesion and capillary-like network formation. **2012**, 13, 706-13	34
715	Three-dimensional vascularization of electrospun PCL/collagen-blend nanofibrous scaffolds in vivo. **2012**, 100, 2302-11	16
714	Functional Human Vascular Network Generated in Photocrosslinkable Gelatin Methacrylate Hydrogels. **2012**, 22, 2027-2039	484
713	Regeneration of skeletal muscle. **2012**, 347, 759-74	180
712	Musculoskeletal tissue engineering by endogenous stem/progenitor cells. **2012**, 347, 665-76	24
711	Intestinal tissue engineering: current concepts and future vision of regenerative medicine in the gut. **2012**, 24, 7-19	39
710	The promotion of in vitro vessel-like organization of endothelial cells in magnetically responsive alginate scaffolds. **2012**, 33, 4100-9	92
709	Prospects for translational regenerative medicine. **2012**, 30, 658-72	61
708	A critical evaluation of in vitro cell culture models for high-throughput drug screening and toxicity. **2012**, 134, 82-106	265
707	Microporous polymeric microsphere via surfactant-free Suzuki coupling polymerization in a single-phase: Porosity and gas uptake. **2012**, 53, 2032-2037	16
706	Alginate: properties and biomedical applications. **2012**, 37, 106-126	4151
705	Polymers used to influence cell fate in 3D geometry: New trends. **2012**, 37, 645-658	55
704	Microdrop printing of hydrogel bioinks into 3D tissue-like geometries. **2012**, 24, 391-6	197
703	Esophageal tissue engineering: an in-depth review on scaffold design. **2012**, 109, 1-15	46

702	TGF-β1 enhances contractility in engineered skeletal muscle. **2013**, 7, 562-71	29
701	Model microgravity enhances endothelium differentiation of mesenchymal stem cells. **2013**, 100, 125-33	37
700	Biomaterials and biotechnology: from the discovery of the first angiogenesis inhibitors to the development of controlled drug delivery systems and the foundation of tissue engineering. **2013**, 101, 2449-55	15
699	Direct plotting of three-dimensional hollow fiber scaffolds based on concentrated alginate pastes for tissue engineering. **2013**, 2, 777-83	104
698	Regeneration. Preface. **2013**, 367, v-vii	4
697	Mechanical and Chemical Signaling in Angiogenesis. **2013**,	1
696	Skeletal muscle tissue engineering: which cell to use?. **2013**, 19, 503-15	52
695	In vitro engineering of vascularized tissue surrogates. **2013**, 3, 1316	223
694	Formation of microvascular networks in vitro. **2013**, 8, 1820-36	149
693	Endothelialization approaches for viable engineered tissues. **2013**, 16, 1-14	88
692	Micromechanical Design Criteria for Tissue Engineering Biomaterials. **2013**, 1165-1178	1
691	Microvascular endothelial cell spreading and proliferation on nanofibrous scaffolds by polymer blends with enhanced wettability. **2013**, 9, 5529	32
690	Patterned prevascularised tissue constructs by assembly of polyelectrolyte hydrogel fibres. **2013**, 4, 2353	99
689	The use of anisotropic cell sheets to control orientation during the self-organization of 3D muscle tissue. **2013**, 34, 7372-80	97
688	Materials science and tissue engineering: repairing the heart. **2013**, 88, 884-98	85
687	Update on vascularization in tissue engineering. **2013**, 8, 759-70	24
686	SLIT3-ROBO4 activation promotes vascular network formation in human engineered tissue and angiogenesis in vivo. **2013**, 64, 124-31	42
685	Induction of Angiogenesis and Vasculogenesis in Cell-Embedded Biomaterials. **2013**, 53, n/a-n/a	

684	Mesenchymal stem cell response to TGF-β1 in both 2D and 3D environments. **2013**, 1, 860-869	16
683	Nanomaterials for cardiac tissue engineering. **2013**, 244-275	4
682	Vascular tissue engineering: biodegradable scaffold platforms to promote angiogenesis. **2013**, 4, 8	55
681	Preservation of Capillary-beds in Rat Lung Tissue Using Optimized Chemical Decellularization. **2013**, 1, 4801-4808	19
680	Characteristics of stem cells. **2013**, 1-32	
679	Upcyte® microvascular endothelial cells repopulate decellularized scaffold. **2013**, 19, 57-67	18
678	A mathematical model predicting the coculture dynamics of endothelial and mesenchymal stem cells for tissue regeneration. **2013**, 19, 1155-64	3
677	The effect of in vitro formation of acetylcholine receptor (AChR) clusters in engineered muscle fibers on subsequent innervation of constructs in vivo. **2013**, 34, 3246-55	41
676	Thinking inside the box: keeping tissue-engineered constructs in vitro for use as preclinical models. **2013**, 19, 14-30	42
675	Biomaterials and stem cells for tissue engineering. **2013**, 13, 527-40	34
674	Three-dimensional spheroids of adipose-derived mesenchymal stem cells are potent initiators of blood vessel formation in porous polyurethane scaffolds. **2013**, 9, 6876-84	78
673	Nonsteady state oxygen transport in engineered tissue: implications for design. **2013**, 19, 1433-42	32
672	Spheroid culture as a tool for creating 3D complex tissues. **2013**, 31, 108-15	639
671	Materiomics: an -omics approach to biomaterials research. **2013**, 25, 802-24	90
670	Engineering a 3D vascular network in hydrogel for mimicking a nephron. **2013**, 13, 1612-8	77
669	Genetic Approaches in Human Embryonic Stem Cells and their Derivatives. **2013**, 311-325	1
668	Human adipose tissue-derived SSEA-4 subpopulation multi-differentiation potential towards the endothelial and osteogenic lineages. **2013**, 19, 235-46	36
667	Platelet-derived growth factor and spatiotemporal cues induce development of vascularized bone tissue by adipose-derived stem cells. **2013**, 19, 2076-86	46

666	Biomaterials for Cell-Based Therapeutic Angiogenesis. **2013**, 247-259	
665	Adipose-derived stem cells promote angiogenesis and tissue formation for in vivo tissue engineering. **2013**, 19, 1327-35	78
664	Three-dimensional tissue cultures: current trends and beyond. **2013**, 352, 123-31	125
663	Vascularization in 3D tissue using cell sheet technology. **2013**, 8, 371-7	22
662	Use of culture geometry to control hypoxia-induced vascular endothelial growth factor secretion from adipose-derived stem cells: optimizing a cell-based approach to drive vascular growth. **2013**, 19, 2330-8	38
661	InVERT molding for scalable control of tissue microarchitecture. **2013**, 4, 1847	100
660	A review of mathematical models for the formation of vascular networks. **2013**, 333, 174-209	104
659	Cell and Gene Transfer Strategies for Vascularization During Skin Wound Healing. **2013**, 637-695	3
658	Biodegradable scaffold fabricated of electrospun albumin fibers: mechanical and biological characterization. **2013**, 19, 257-64	45
657	Microfabricated mammalian organ systems and their integration into models of whole animals and humans. **2013**, 13, 1201-12	184
656	Workshop meeting report Organs-on-Chips: human disease models. **2013**, 13, 3449-70	68
655	The pivotal role of vascularization in tissue engineering. **2013**, 15, 177-200	225
654	Network formation through active migration of human vascular endothelial cells in a multilayered skeletal myoblast sheet. **2013**, 34, 662-8	39
653	The role of endothelial cells in myofiber differentiation and the vascularization and innervation of bioengineered muscle tissue in vivo. **2013**, 34, 140-9	39
652	3D scaffolds in tissue engineering and regenerative medicine: beyond structural templates?. **2013**, 1, 267-281	12
651	Prevascularized microtemplated fibrin scaffolds for cardiac tissue engineering applications. **2013**, 19, 967-77	50
650	Effectiveness of nanometer-sized extracellular matrix layer-by-layer assembled films for a cell membrane coating protecting cells from physical stress. **2013**, 29, 7362-8	64
649	Magnetic Hydrogels and Their Potential Biomedical Applications. **2013**, 23, 660-672	431

648	Myogenic differentiation of mesenchymal stem cells in a newly developed neurotised AV-loop model. **2013**, 2013, 935046	22
647	Nanomagnetic Gene Transfection for Non-Viral Gene Delivery in NIH 3T3 Mouse Embryonic Fibroblasts. **2013**, 6, 255-264	21
646	A BOTTOM-UP METHOD TO BUILD 3D SCAFFOLDS WITH PREDEFINED VASCULAR NETWORK. **2013** , 13, 1340008	5
645	Geometric control of vascular networks to enhance engineered tissue integration and function. **2013**, 110, 7586-91	197
644	Reversing charges or how to improve Wharton© jelly mesenchymal stem cells culture on polyelectrolyte multilayer films. **2013**, 23, 299-309	7
643	Boosting angiogenesis and functional vascularization in injectable dextran-hyaluronic acid hydrogels by endothelial-like mesenchymal stromal cells. **2014**, 20, 819-29	13
642	Effects of B-cell lymphoma 2 gene transfer to myoblast cells on skeletal muscle tissue formation using magnetic force-based tissue engineering. **2013**, 19, 307-15	12
641	Biomaterials directed in vivo osteogenic differentiation of mesenchymal cells derived from human embryonic stem cells. **2013**, 19, 1723-32	41
640	Immunomodulatory effect of a decellularized skeletal muscle scaffold in a discordant xenotransplantation model. **2013**, 110, 14360-5	155
639	Integration and regression of implanted engineered human vascular networks during deep wound healing. **2013**, 2, 297-306	37
638	Polymers from Renewable Resources. **2013**, 1, 83-112	18
637	Engineering skeletal muscle tissues from murine myoblast progenitor cells and application of electrical stimulation. **2013**, e4267	17
636	Discussion: A report of the ASPS Task Force on regenerative medicine: opportunities for plastic surgery. **2013**, 131, 400-403	3
635	Reconstruction of human mandibular continuity defects with allogenic scaffold and autologous marrow mesenchymal stem cells. **2013**, 24, 1292-7	23
634	Fusible core molding for the fabrication of branched, perfusable, three-dimensional microvessels for vascular tissue engineering. **2013**, 36, 159-65	4
633	Directed in vitro myogenesis of human embryonic stem cells and their in vivo engraftment. **2013**, 8, e72023	35
632	A novel in vitro model for microvasculature reveals regulation of circumferential ECM organization by curvature. **2013**, 8, e81061	20
631	Manipulating the microvasculature and its microenvironment. **2013**, 41, 91-123	18

630	Tissue Engineering. **2014**, 1-21	4
629	Microfabrication of channel arrays promotes vessel-like network formation in cardiac cell construct and vascularization in vivo. **2014**, 6, 024102	34
628	Prospects for In Vitro Cultured Meat □A Future Harvest. **2014**, 1663-1683	13
627	Engineering of human hepatic tissue with functional vascular networks. **2014**, 10, 260-7	28
626	Principles of Cardiovascular Tissue Engineering. **2014**, 627-683	
625	Vascularization, Survival, and Functionality of Tissue-Engineered Constructs. **2014**, 471-496	1
624	Biomimetic engineered muscle with capacity for vascular integration and functional maturation in vivo. **2014**, 111, 5508-13	169
623	3D hydrogel environment rejuvenates aged pericytes for skeletal muscle tissue engineering. **2014**, 5, 203	77
622	Cardiac tissue engineering: a reflection after a decade of hurry. **2014**, 5, 365	5
621	Preparation of three-dimensional vascularized MSC cell sheet constructs for tissue regeneration. **2014**, 2014, 301279	42
620	Differentiation of canine adipose tissue-derived mesenchymal stem cells towards endothelial progenitor cells. **2014**, 75, 685-91	8
619	Skeletal muscle tissue engineering: strategies for volumetric constructs. **2014**, 5, 362	71
618	ENGINEERING OF SURFACE FUNCTIONALITY ONTO POLYSTYRENE MICROCARRIERS FOR THE ATTACHMENT AND GROWTH OF HUMAN ENDOTHELIAL CELLS. **2014**, 02, 1450003	1
617	Engineering of tissues and organs. **2014**, 347-386	
616	Automated, spatio-temporally controlled cell microprinting with polymeric aqueous biphasic system. **2014**, 111, 404-12	19
615	Implanted cell-dense prevascularized tissues develop functional vasculature that supports reoxygenation after thrombosis. **2014**, 20, 2316-28	33
614	Arrayed Hollow Channels in Silk-based Scaffolds Provide Functional Outcomes for Engineering Critically-sized Tissue Constructs. **2014**, 24, 2188-2196	63
613	Introduction to biomedical foams. **2014**, 3-39	11

612	In vivo skeletal muscle biocompatibility of composite, coaxial electrospun, and microfibrous scaffolds. **2014**, 20, 1961-70	26
611	Vascularizing engineered tissues for in vivo and in vitro applications. **2014**, 283-298	
610	Connections matter: channeled hydrogels to improve vascularization. **2014**, 2, 52	26
609	A multistep procedure to prepare pre-vascularized cardiac tissue constructs using adult stem sells, dynamic cell cultures, and porous scaffolds. **2014**, 5, 210	21
608	Synergistic Effect of Regeneration and Inflammation via Ibuprofen-Loaded Electrospun Fibrous Scaffolds for Repairing Skeletal Muscle. **2014**, 12, 41-52	1
607	Spirobixanthene-based microporous polymeric microsphere for gas uptake and vapor adsorption. **2014**, 116, 120-122	1
606	Vascularization strategies for bone regeneration. **2014**, 42, 432-44	51
605	A tunable silk-alginate hydrogel scaffold for stem cell culture and transplantation. **2014**, 35, 3736-43	72
604	Critical analysis of 3-D organoid in vitro cell culture models for high-throughput drug candidate toxicity assessments. **2014**, 69-70, 1-18	139
603	The effect of scaffold macroporosity on angiogenesis and cell survival in tissue-engineered smooth muscle. **2014**, 35, 5129-37	56
602	Phage nanofibers induce vascularized osteogenesis in 3D printed bone scaffolds. **2014**, 26, 4961-4966	171
601	Nanofibers coated on acellular tissue-engineered bovine pericardium supports differentiation of mesenchymal stem cells into endothelial cells for tissue engineering. **2014**, 9, 623-34	11
600	Prolonged presence of VEGF promotes vascularization in 3D bioprinted scaffolds with defined architecture. **2014**, 184, 58-66	165
599	Heart regeneration with engineered myocardial tissue. **2014**, 16, 1-28	55
598	Strategies and Challenges for Bio-inspired Cardiovascular Biomaterials. **2014**, 227-257	
597	From Mathematical Models to Clinical Reality. **2014**, 25-39	
596	Induced pluripotent stem cell-derived hepatocytes and endothelial cells in multi-component hydrogel fibers for liver tissue engineering. **2014**, 35, 6006-14	104
595	Effects of angiogenic factors and 3D-microenvironments on vascularization within sandwich cultures. **2014**, 35, 4739-48	74

594	Application of magnetic nanoparticle for controlled tissue assembly and tissue engineering. **2014**, 37, 120-8	47
593	Geometric control of capillary architecture via cell-matrix mechanical interactions. **2014**, 35, 3273-80	32
592	Bioengineering dermo-epidermal skin grafts with blood and lymphatic capillaries. **2014**, 6, 221ra14	142
591	Three-dimensional cell culture technique and pathophysiology. **2014**, 74, 95-103	73
590	Biofunctionalized microfiber-assisted formation of intrinsic three-dimensional capillary-like structures. **2014**, 20, 1858-69	24
589	Engineering Angiogenesis for Myocardial Infarction Repair: Recent Developments, Challenges, and Future Directions. **2014**, 5, 281-307	10
588	Directed self-assembly of polypeptide-engineered physical microgels for building porous cell-laden hydrogels. **2014**, 50, 9405-8	24
587	The effect of endothelial cells on hESC-derived pancreatic progenitors in a 3D environment. **2014**, 2, 1706-1714	11
586	Using physiologically-based pharmacokinetic-guided "body-on-a-chip" systems to predict mammalian response to drug and chemical exposure. **2014**, 239, 1225-39	103
585	Microfabrication and microfluidics for muscle tissue models. **2014**, 115, 279-93	34
584	Detecting De-gelation through Tissue Using Magnetically Modulated Optical Nanoprobes (MagMOONs). **2014**, 205, 313-321	10
583	Cardiac Tissue Engineering. **2014**,	2
582	In vivo bioluminescent tracking of mesenchymal stem cells within large hydrogel constructs. **2014**, 20, 806-16	22
581	Tissue engineering. **2014**, 48, 137-54	30
580	Role of angiogenesis in bone repair. **2014**, 561, 109-17	211
579	Roles of adherent myogenic cells and dynamic culture in engineered muscle function and maintenance of satellite cells. **2014**, 35, 9438-46	46
578	CellBiomaterial interactions for blood vessel formation. **2014**, 350-388	1
577	Airway tissue engineering: an update. **2014**, 14, 1477-91	55

576	Cell and tissue engineering for liver disease. **2014**, 6, 245sr2	212
575	Embryonic Stem Cells as a Cell Source for Tissue Engineering. **2014**, 609-638	4
574	Poly(2-hydroxyethyl methacrylate)-b-poly(L-Lysine) cationic hybrid materials for non-viral gene delivery in NIH 3T3 mouse embryonic fibroblasts. **2014**, 14, 1239-48	8
573	Emerging nanostructured materials for musculoskeletal tissue engineering. **2014**, 2, 6435-6461	47
572	In situ regeneration of skeletal muscle tissue through host cell recruitment. **2014**, 10, 4332-9	55
571	[New perspectives in skeletal muscle tissue engineering]. **2014**, 62, 415-22	1
570	Skeletal muscle tissue engineering: methods to form skeletal myotubes and their applications. **2014**, 20, 403-36	164
569	Effect of nano- and micro-scale topological features on alignment of muscle cells and commitment of myogenic differentiation. **2014**, 6, 035012	63
568	Integrating organ-specific function with the microcirculation. **2014**, 3, 103-111	10
567	Fabrication of Cell Patches Using Biodegradable Scaffolds with a Hexagonal Array of Interconnected Pores (SHAIPs). **2014**, 55, 445-452	9
566	MSC-based VEGF gene therapy in rat myocardial infarction model using facial amphipathic bile acid-conjugated polyethyleneimine. **2014**, 35, 1744-54	65
565	Smooth muscle cells largely develop independently of functional hemogenic endothelium. **2014**, 12, 222-32	10
564	Microfluidic techniques for development of 3D vascularized tissue. **2014**, 35, 7308-25	215
563	Characterization and multilineage potential of cells derived from isolated microvascular fragments. **2014**, 192, 214-22	30
562	Time Dependence of Material Properties of Polyethylene Glycol Hydrogels Chain Extended with Short Hydroxy Acid Segments. **2014**, 55, 3894-3904	20
561	Comparison of angiogenic potential between prevascular and non-prevascular layered adipose-derived stem cell-sheets in early post-transplanted period. **2014**, 102, 358-65	22
560	Bone Biology and Regeneration. **2014**, 315-342	3
559	Cell sheet-based tissue engineering for fabricating 3-dimensional heart tissues. **2014**, 78, 2594-603	32

558	Neonatal human dermal fibroblasts immobilized in RGD-alginate induce angiogenesis. **2014**, 23, 945-57	18
557	Nanotechnologies for Cardiovascular Tissue Engineering. **2014**, 381-406	
556	Regeneration and repair of human digits and limbs: fact and fiction. **2015**, 2, 149-68	22
555	6b. Cell Sheet-Based Myocardial Tissue Engineering. **2015**, 183-198	
554	Cell Sheet-Based Tissue Engineering for Organizing Anisotropic Tissue Constructs Produced Using Microfabricated Thermoresponsive Substrates. **2015**, 4, 2388-407	49
553	Facile fabrication of egg white macroporous sponges for tissue regeneration. **2015**, 4, 2281-90	28
552	Negating Tissue Contracture Improves Volume Maintenance and Longevity of In Vivo Engineered Tissues. **2015**, 136, 453e-460e	1
551	Trends in Mesenchymal Stem Cells-Applications for Skeletal Muscle Repair and Regeneration. **2015**,	4
550	Imaging approaches in functional assessment of implantable myogenic biomaterials and engineered muscle tissue. **2015**, 25, 63	10
549	A review of cellularization strategies for tissue engineering of whole organs. **2015**, 3, 43	131
548	Guest Editorial: Vascularization in Tissue Engineering. **2015**, 43, 431-2	
547	Cell based advanced therapeutic medicinal products for bone repair: Keep it simple?. **2015**, 84, 30-44	33
546	A method for constructing vascularized muscle flap. **2015**, 84, 70-5	15
545	In situ vascularization of injectable fibrin/poly(ethylene glycol) hydrogels by human amniotic fluid-derived stem cells. **2015**, 103, 2645-53	23
544	Synergizing Engineering and Biology to Treat and Model Skeletal Muscle Injury and Disease. **2015**, 17, 217-42	38
543	Monitoring through Tissue the De-gelation of Alginate Gels by Different De-gelling Agents. **2015**, 62-66	1
542	Endothelial outgrowth cells regulate coagulation, platelet accumulation, and respond to tumor necrosis factor similar to carotid endothelial cells. **2015**, 21, 174-82	10
541	Multifunctional cell-culture platform for aligned cell sheet monitoring, transfer printing, and therapy. **2015**, 9, 2677-88	58

540	Marine Biomaterials. **2015**, 1195-1215	5
539	A medium throughput device to study the effects of combinations of surface strains and fluid-flow shear stresses on cells. **2015**, 15, 429-39	28
538	Patterning vascular networks in vivo for tissue engineering applications. **2015**, 21, 509-17	39
537	In vivo generation of a mature and functional artificial skeletal muscle. **2015**, 7, 411-22	63
536	In vitro analysis of scaffold-free prevascularized microtissue spheroids containing human dental pulp cells and endothelial cells. **2015**, 41, 663-70	45
535	Nano-film modification of collagen hydrogels for controlled growth factor release. **2015**, 137, 626-630	9
534	Endothelial Network Formation Within Human Tissue-Engineered Skeletal Muscle. **2015**, 21, 2548-58	54
533	Experimental approaches to vascularisation within tissue engineering constructs. **2015**, 26, 683-734	42
532	Auricular reconstruction using biofabrication-based tissue engineering strategies. **2015**, 7, 032001	30
531	A 3D bioprinted complex structure for engineering the muscle-tendon unit. **2015**, 7, 035003	235
530	Biomaterials and scaffolds for musculoskeletal tissue engineering. **2015**, 3-23	15
529	Muscle tissue engineering. **2015**, 239-268	0
528	Vascularization of engineered musculoskeletal tissues. **2015**, 269-291	
527	Spatial coordination of cell orientation directed by nanoribbon sheets. **2015**, 53, 86-94	32
526	pH-responsive scaffolds generate a pro-healing response. **2015**, 57, 22-32	23
525	Enzymatic regulation of functional vascular networks using gelatin hydrogels. **2015**, 19, 85-99	31
524	Recellularization of rat liver scaffolds by human liver stem cells. **2015**, 21, 1929-39	41
523	LbL Nanofilms Through Biological Recognition for 3D Tissue Engineering. **2015**, 419-452	

522	Vascularization of hollow channel-modified porous silk scaffolds with endothelial cells for tissue regeneration. **2015**, 56, 68-77	107
521	The promotion of angiogenesis induced by three-dimensional porous beta-tricalcium phosphate scaffold with different interconnection sizes via activation of PI3K/Akt pathways. **2015**, 5, 9409	104
520	Investigating muscle regeneration with a dermis/small intestinal submucosa scaffold in a rat full-thickness abdominal wall defect model. **2015**, 103, 355-64	33
519	Biomaterials based strategies for skeletal muscle tissue engineering: existing technologies and future trends. **2015**, 53, 502-21	270
518	Hyper Bio Assembler for 3D Cellular Systems. **2015**,	0
517	Applications of three-dimensional printing technology in the cardiovascular field. **2015**, 10, 769-80	14
516	Cell Detachment for Engineering Three-Dimensional Tissues. **2015**, 213-222	
515	Ductile electroactive biodegradable hyperbranched polylactide copolymers enhancing myoblast differentiation. **2015**, 71, 158-167	85
514	Self-assembly of polydimethylsiloxane structures from 2D to 3D for bio-hybrid actuation. **2015**, 10, 056001	25
513	Endothelial cell dynamics during anastomosis in vitro. **2015**, 7, 454-66	20
512	Bioprinting in Regenerative Medicine. **2015**,	3
511	Bioengineering vascularized tissue constructs using an injectable cell-laden enzymatically crosslinked collagen hydrogel derived from dermal extracellular matrix. **2015**, 27, 151-166	60
510	Regenerative medicine: Current therapies and future directions. **2015**, 112, 14452-9	464
509	Human endothelial colony-forming cells expanded with an improved protocol are a useful endothelial cell source for scaffold-based tissue engineering. **2015**, 9, E84-97	12
508	Engineering a freestanding biomimetic cardiac patch using biodegradable poly(lactic-co-glycolic acid) (PLGA) and human embryonic stem cell-derived ventricular cardiomyocytes (hESC-VCMs). **2015**, 15, 426-36	25
507	Endothelial progenitor cells from peripheral blood support bone regeneration by provoking an angiogenic response. **2015**, 98, 40-7	33
506	Induction of functional tissue-engineered skeletal muscle constructs by defined electrical stimulation. **2014**, 4, 4781	77
505	Three-dimensional cell manipulation and patterning using dielectrophoresis via a multi-layer scaffold structure. **2015**, 15, 920-30	34

504	Incorporation of a prolyl hydroxylase inhibitor into scaffolds: a strategy for stimulating vascularization. **2015**, 21, 1106-15	1
503	Angiogenic gene-modified myoblasts promote vascularization during repair of skeletal muscle defects. **2015**, 9, 1404-16	15
502	Controlled protein delivery in the generation of microvascular networks. **2015**, 5, 75-88	7
501	Advances in techniques for probing mechanoregulation of tissue morphogenesis. **2015**, 20, 127-37	6
500	Evaluating 3D-printed biomaterials as scaffolds for vascularized bone tissue engineering. **2015**, 27, 138-44	196
499	Skeletal Muscle Tissue Engineering. **2015**, 567-592	3
498	Radially oriented collagen scaffold with SDF-1 promotes osteochondral repair by facilitating cell homing. **2015**, 39, 114-23	132
497	Advances in tissue engineering through stem cell-based co-culture. **2015**, 9, 488-503	111
496	Construction of three-dimensional liver tissue models by cell accumulation technique and maintaining their metabolic functions for long-term culture without medium change. **2015**, 103, 1554-64	20
495	Anisotropic cellular network formation in engineered muscle tissue through the self-organization of neurons and endothelial cells. **2015**, 4, 356-60	32
494	Alginate composites for bone tissue engineering: a review. **2015**, 72, 269-81	523
493	Naturally derived and synthetic scaffolds for skeletal muscle reconstruction. **2015**, 84, 208-21	151
492	Co-culture of adipose-derived stem cells and endothelial cells in fibrin induces angiogenesis and vasculogenesis in a chorioallantoic membrane model. **2016**, 10, 496-506	42
491	. **2016**,	12
490	Development of Synthetic and Natural Materials for Tissue Engineering Applications Using Adipose Stem Cells. **2016**, 2016, 5786257	28
489	Applications of Mesenchymal Stem Cells and Neural Crest Cells in Craniofacial Skeletal Research. **2016**, 2016, 2849879	6
488	The Application of Ultrasound in 3D Bio-Printing. **2016**, 21,	19
487	Wnt5a Regulates the Assembly of Human Adipose Derived Stromal Vascular Fraction-Derived Microvasculatures. **2016**, 11, e0151402	7

486	Fabrication of High-Aspect-Ratio 3D Hydrogel Microstructures Using Optically Induced Electrokinetics. **2016**, 7,	5
485	Patterning Vasculature: The Role of Biofabrication to Achieve an Integrated Multicellular Ecosystem. **2016**, 2, 1694-1709	21
484	High-Throughput Blood- and Lymph-Capillaries with Open-Ended Pores Which Allow the Transport of Drugs and Cells. **2016**, 5, 1969-78	13
483	Cell spheroids: the new frontiers in in vitro models for cancer drug validation. **2016**, 21, 1553-1560	72
482	Endothelial colony-forming cells for preparing prevascular three-dimensional cell-dense tissues using cell-sheet engineering. **2016**, 10, 739-47	12
481	Primary skeletal muscle cells cultured on gelatin bead microcarriers develop structural and biochemical features characteristic of adult skeletal muscle. **2016**, 40, 364-74	6
480	Directed Assembly and Development of Material-Free Tissues with Complex Architectures. **2016**, 28, 4032-9	40
479	Perinatal Tissue-Derived Stem Cells. **2016**,	
478	Perinatal Tissue-Derived Endothelial Progenitor Cells. **2016**, 65-80	2
477	Progressive Muscle Cell Delivery as a Solution for Volumetric Muscle Defect Repair. **2016**, 6, 38754	26
476	Guidelines for Models of Skeletal Muscle Injury and Therapeutic Assessment. **2016**, 202, 214-226	7
475	A morphospace for synthetic organs and organoids: the possible and the actual. **2016**, 8, 485-503	34
474	Gradual conversion of cellular stress patterns into pre-stressed matrix architecture during in vitro tissue growth. **2016**, 13,	21
473	Construction and myogenic differentiation of 3D myoblast tissues fabricated by fibronectin-gelatin nanofilm coating. **2016**, 474, 515-521	17
472	3D-printed fluidic networks as vasculature for engineered tissue. **2016**, 16, 2025-43	93
471	In vitro formation of vascular-like networks using hydrogels. **2016**, 122, 519-527	18
470	Vasculogenic potential evaluation of bottom-up, PCL scaffolds guiding early angiogenesis in tissue regeneration. **2016**, 27, 107	14
469	Muscular dystrophy in a dish: engineered human skeletal muscle mimetics for disease modeling and drug discovery. **2016**, 21, 1387-1398	39

468	Hydrophilic Polymers. **2016**, 163-185	1
467	Polyester Nano- and Microtechnologies for Tissue Engineering. **2016**, 595-649	1
466	Generation of human muscle fibers and satellite-like cells from human pluripotent stem cells in vitro. **2016**, 11, 1833-50	132
465	Plasma treatment in conjunction with EGM-2 medium increases endothelial and osteogenic marker expressions of bone marrow mesenchymal stem cells. **2016**, 51, 9145-9154	4
464	Creating Interactions between Tissue-Engineered Skeletal Muscle and the Peripheral Nervous System. **2016**, 202, 143-158	28
463	Enhancing vascularization of a gelatin-based micro-cavitary hydrogel by increasing the density of the micro-cavities. **2016**, 11, 055012	10
462	In vivo vascularization of MSC-loaded porous hydroxyapatite constructs coated with VEGF-functionalized collagen/heparin multilayers. **2016**, 6, 19871	26
461	Engineered Vascularized Muscle Flap. **2016**,	3
460	Striated muscle function, regeneration, and repair. **2016**, 73, 4175-4202	48
459	Vascularization of three-dimensional engineered tissues for regenerative medicine applications. **2016**, 41, 17-26	91
458	Design Principles for Engineering of Tissues from Human Pluripotent Stem Cells. **2016**, 2, 43-51	17
457	Mechanisms by which acellular biologic scaffolds promote functional skeletal muscle restoration. **2016**, 103, 128-136	49
456	Stretchable and Transparent Biointerface Using Cell-Sheet□Graphene Hybrid for Electrophysiology and Therapy of Skeletal Muscle. **2016**, 26, 3207-3217	103
455	Vascularization strategies of engineered tissues and their application in cardiac regeneration. **2016**, 96, 183-94	98
454	Effects of Dexamethasone on Satellite Cells and Tissue Engineered Skeletal Muscle Units. **2016**, 22, 480-9	22
453	Spontaneous Formation of Extensive Vessel-Like Structures in Murine Engineered Heart Tissue. **2016**, 22, 326-35	16
452	Soft Origami: Classification, Constraint, and Actuation of Highly Compliant Origami Structures. **2016**, 8,	9
451	Creating Hierarchical Topographies on Fibrous Platforms Using Femtosecond Laser Ablation for Directing Myoblasts Behavior. **2016**, 8, 3407-17	38

450	Physical and Chemical Signals That Promote Vascularization of Capillary-Scale Channels. **2016**, 9, 73-84	36
449	Ultrasound-guided photoacoustic imaging-directed re-endothelialization of acellular vasculature leads to improved vascular performance. **2016**, 32, 35-45	8
448	Advances in tissue engineering. **2016**, 51, 8-12	143
447	Prevascularization in tissue engineering: Current concepts and future directions. **2016**, 34, 112-21	164
446	Vascularization and Angiogenesis in Tissue Engineering: Beyond Creating Static Networks. **2016**, 34, 733-745	364
445	Characterization and preparation of bio-tubular scaffolds for fabricating artificial vascular grafts by combining electrospinning and a co-culture system. **2016**, 24, 131-142	17
444	Human adipose-derived stem cells promote vascularization of collagen-based scaffolds transplanted into nude mice. **2016**, 11, 261-71	27
443	Biomaterials for pluripotent stem cell engineering: From fate determination to vascularization. **2016**, 4, 3454-3463	13
442	Endothelial sprouting and network formation in collagen- and fibrin-based modular microbeads. **2016**, 29, 33-41	28
441	Heart regeneration. **2016**, 1863, 1749-59	18
440	Microscale Technologies for Engineering Complex Tissue Structures. **2016**, 3-25	4
439	Three-dimensional bioprinting in tissue engineering and regenerative medicine. **2016**, 38, 203-11	142
438	Design, evaluation, and application of engineered skeletal muscle. **2016**, 99, 81-90	35
437	Classic Studies on the Potential of Stem Cell Neuroregeneration. **2016**, 25, 123-41	2
436	Mechanical regulation of vascular network formation in engineered matrices. **2016**, 96, 176-82	28
435	Interfacial self-assembly of endothelial cells toward angiogenic network formation in the composite hydrogel culture systems. **2017**, 32, 61-73	3
434	"Steel-Concrete" Inspired Biofunctional Layered Hybrid Cage for Spine Fusion and Segmental Bone Reconstruction. **2017**, 3, 637-647	2
433	Developing a biomimetic tooth bud model. **2017**, 11, 3326-3336	27

432	Direct 3D bioprinting of prevascularized tissue constructs with complex microarchitecture. **2017**, 124, 106-115	313
431	Tropoelastin coated PLLA-PLGA scaffolds promote vascular network formation. **2017**, 122, 72-82	41
430	Ectopic tissue engineered ligament with silk collagen scaffold for ACL regeneration: A preliminary study. **2017**, 53, 307-317	11
429	MRI of Vascularized Tissue-Engineered Organs. **2017**, 311-331	
428	Creating to understand - developmental biology meets engineering in Paris. **2017**, 144, 733-736	7
427	Construction of three-dimensional vascularized functional human liver tissue using a layer-by-layer cell coating technique. **2017**, 133, 263-274	53
426	Glucose-sensitive self-healing hydrogel as sacrificial materials to fabricate vascularized constructs. **2017**, 133, 20-28	65
425	Construction of vascularized pacemaker tissues by seeding cardiac progenitor cells and endothelial progenitor cells into Matrigel. **2017**, 179, 139-146	17
424	Biomimetic Assembly of Vascular Endothelial Cells and Muscle Cells in Microgrooved Collagen Porous Scaffolds. **2017**, 23, 367-376	25
423	A short discourse on vascular tissue engineering. **2017**, 2,	88
422	Effect of monocytes/macrophages on the osteogenic differentiation of adipose-derived mesenchymal stromal cells in 3D co-culture spheroids. **2017**, 49, 461-469	8
421	Microsurgical Approaches for In Vivo Prevascularization. **2017**, 1-18	2
420	Bioengineered constructs combined with exercise enhance stem cell-mediated treatment of volumetric muscle loss. **2017**, 8, 15613	129
419	Novel hiPSC-based tri-culture for pre-vascularization of calcium phosphate scaffold to enhance bone and vessel formation. **2017**, 79, 296-304	27
418	Improvement of endothelial progenitor outgrowth cell (EPOC)-mediated vascularization in gelatin-based hydrogels through pore size manipulation. **2017**, 58, 225-237	21
417	3D-printed vascular networks direct therapeutic angiogenesis in ischaemia. **2017**, 1,	91
416	Implanted scaffolds: Pre-ordered vessels halt ischaemia. **2017**, 1,	0
415	Towards a Humanized Mouse Model of Liver Stage Malaria Using Ectopic Artificial Livers. **2017**, 7, 45424	17

414	Microfluidic-enhanced 3D bioprinting of aligned myoblast-laden hydrogels leads to functionally organized myofibers in vitro and in vivo. **2017**, 131, 98-110	184
413	Skeletal Myoblast-Seeded Vascularized Tissue Scaffolds in the Treatment of a Large Volumetric Muscle Defect in the Rat Biceps Femoris Muscle. **2017**, 23, 989-1000	26
412	Development of Tissue-Engineered Blood Vessels. **2017**, 325-361	
411	Musculoskeletal Tissue Engineering: Tendon, Ligament, and Skeletal Muscle Replacement and Repair. **2017**, 465-523	1
410	Elderly Patient-Derived Endothelial Cells for Vascularization of Engineered Muscle. **2017**, 25, 935-948	31
409	Engineering an Injectable Muscle-Specific Microenvironment for Improved Cell Delivery Using a Nanofibrous Extracellular Matrix Hydrogel. **2017**, 11, 3851-3859	45
408	Advances in on-chip vascularization. **2017**, 12, 285-302	81
407	Biomimetic Approaches for Bone Tissue Engineering. **2017**, 23, 480-493	46
406	Additive Manufacturing of Vascular Grafts and Vascularized Tissue Constructs. **2017**, 23, 436-450	49
405	Engineering of an angiogenic niche by perfusion culture of adipose-derived stromal vascular fraction cells. **2017**, 7, 14252	14
404	Design of biomimetic cellular scaffolds for co-culture system and their application. **2017**, 8, 2041731417724640	48
403	Injectable biomimetic liquid crystalline scaffolds enhance muscle stem cell transplantation. **2017**, 114, E7919-E7928	59
402	3D porous polyurethanes featured by different mechanical properties: Characterization and interaction with skeletal muscle cells. **2017**, 75, 147-159	25
401	Multilayered Engineered Tissue Sheets for Vascularized Tissue Regeneration. **2017**, 14, 371-381	14
400	Convergence of microengineering and cellular self-organization towards functional tissue manufacturing. **2017**, 1, 939-956	59
399	Harnessing Sphingosine-1-Phosphate Signaling and Nanotopographical Cues To Regulate Skeletal Muscle Maturation and Vascularization. **2017**, 11, 11954-11968	17
398	Electrical pulse stimulation of cultured skeletal muscle cells as a model for in vitro exercise - possibilities and limitations. **2017**, 220, 310-331	53
397	Application of bioresorbable polymers in muscular system. **2017**, 469-495	

396	Endothelial pattern formation in hybrid constructs of additive manufactured porous rigid scaffolds and cell-laden hydrogels for orthopedic applications. **2017**, 65, 356-372	20
395	Skeletal muscle-derived interstitial progenitor cells (PICs) display stem cell properties, being clonogenic, self-renewing, and multi-potent in vitro and in vivo. **2017**, 8, 158	20
394	The combination of stem cells and tissue engineering: an advanced strategy for blood vessels regeneration and vascular disease treatment. **2017**, 8, 194	33
393	. **2017**,	4
392	Engineering Muscle Networks in 3D Gelatin Methacryloyl Hydrogels: Influence of Mechanical Stiffness and Geometrical Confinement. **2017**, 5, 22	42
391	A Novel Human Tissue-Engineered 3-D Functional Vascularized Cardiac Muscle Construct. **2017**, 5, 2	20
390	Tissue Engineering. **2017**,	6
389	5.14 Biofabrication in Tissue Engineering. **2017**, 236-266	22
388	6.21 Tissue-Engineering Hollow Noncardiac Intrathoracic Organs: State-of-the-Art 2010. **2017**, 383-402	
387	5.16 Medical Applications of Cell Sheet Engineering. **2017**, 287-302	
386	5.18 Endogenous Strategies in Tissue Engineering. **2017**, 329-342	
385	6.13 Tissue Engineering of Muscle Tissue. **2017**, 216-235	
384	In Situ Forming Gelatin Hydrogels-Directed Angiogenic Differentiation and Activity of Patient-Derived Human Mesenchymal Stem Cells. **2017**, 18,	10
383	Exploratory study on the effect of osteoactivin on muscle regeneration in a rat volumetric muscle loss model. **2017**, 12, e0175853	8
382	Introduction of vasculature in engineered three-dimensional tissue. **2017**, 37, 25	14
381	An in vitro human skeletal muscle model: coculture of myotubes,neuron-like cells, and the capillary network. **2017**, 41, 514-525	
380	Bio-Instructive Scaffolds for Musculoskeletal Interfaces. **2017**, 203-233	5
379	Engineering Vascular Niche for Bone Tissue Regeneration. **2017**, 517-529	

378	Micro- and Nanosurface Patterning Technologies. **2017**, 375-390	2
377	Tissue Engineering of Skeletal Tissues. **2018**,	2
376	Tackling muscle fibrosis: From molecular mechanisms to next generation engineered models to predict drug delivery. **2018**, 129, 64-77	21
375	Opportunities for applying biomedical production and manufacturing methods to the development of the clean meat industry. **2018**, 132, 161-168	60
374	Vascular Tissue Engineering: Progress, Challenges, and Clinical Promise. **2018**, 22, 340-354	185
373	Conducting Polymers for Tissue Engineering. **2018**, 19, 1764-1782	389
372	Three-Dimensional Human iPSC-Derived Artificial Skeletal Muscles Model Muscular Dystrophies and Enable Multilineage Tissue Engineering. **2018**, 23, 899-908	141
371	Vascularization in Craniofacial Bone Tissue Engineering. **2018**, 97, 969-976	30
370	Xeno-free pre-vascularized spheroids for therapeutic applications. **2018**, 8, 230	24
369	Vascularization and angiogenesis in electrospun tissue engineered constructs: towards the creation of long-term functional networks. **2018**, 4, 032001	8
368	Numerical Simulation of Turbulent Flow and Heat Transfer in a Three-Dimensional Channel Coupled with Flow Through Porous Structures. **2018**, 122, 145-167	19
367	Enzymatic Formation of an Injectable Hydrogel from a Glycopeptide as a Biomimetic Scaffold for Vascularization. **2018**, 10, 6180-6189	32
366	Rapid generation of three-dimensional microchannels for vascularization using a subtractive printing technique. **2018**, 11, e201700226	5
365	A 3D bioprinted in situ conjugated-co-fabricated scaffold for potential bone tissue engineering applications. **2018**, 106, 1311-1321	26
364	Cellular Biomechanics in Skeletal Muscle Regeneration. **2018**, 126, 125-176	21
363	Myogenic potential of mesenchymal stem cells isolated from porcine adipose tissue. **2018**, 372, 507-522	9
362	In Vitro Tissue-Engineered Skeletal Muscle Models for Studying Muscle Physiology and Disease. **2018**, 7, e1701498	44
361	Graphene Oxide-Based Biocompatible 3D Mesh with a Tunable Porosity and Tensility for Cell Culture. **2018**, 4, 1505-1517	3

360	Stem Cells for Skeletal Muscle Tissue Engineering. **2018**, 24, 373-391	38
359	[Stem cell-based strategies in vascular surgery]. **2018**, 23, 28-33	
358	Flow-Induced Vascular Network Formation and Maturation in Three-Dimensional Engineered Tissue. **2018**, 4, 1265-1271	22
357	Functional Tissue Engineering: A Prevascularized Cardiac Muscle Construct for Validating Human Mesenchymal Stem Cells Engraftment Potential In Vitro. **2018**, 24, 157-185	17
356	Fibroblasts as maestros orchestrating tissue regeneration. **2018**, 12, 240-251	42
355	Endothelial Progenitor Cells for the Vascularization of Engineered Tissues. **2018**, 24, 1-24	91
354	Differentiation and characterization of rat adipose tissue mesenchymal stem cells into endothelial-like cells. **2018**, 47, 11-20	7
353	Biomaterials and Tissue Engineering. **2018**, 17-51	21
352	Crosstalk between developing vasculature and optogenetically engineered skeletal muscle improves muscle contraction and angiogenesis. **2018**, 156, 65-76	38
351	iPSCs-based generation of vascular cells: reprogramming approaches and applications. **2018**, 75, 1411-1433	39
350	Inspired by Nature: Hydrogels as Versatile Tools for Vascular Engineering. **2018**, 7, 232-246	28
349	Obstacles and challenges for tissue engineering and regenerative medicine: Australian nuances. **2018**, 45, 390-400	15
348	□□ and □□ integrin-specific ligands: From tumor angiogenesis inhibitors to vascularization promoters in regenerative medicine?. **2018**, 36, 208-227	31
347	Fibrin Hydrogels for Endothelialized Liver Tissue Engineering with a Predesigned Vascular Network. **2018**, 10,	19
346	Engineered circulatory scaffolds for building cardiac tissue. **2018**, 10, S2312-S2328	18
345	Myocardial Repair. **2018**, 425-439	
344	OBSOLETE: Myocardial Repair. **2018**,	
343	Strategies for Tissue Engineering Vascularized Cardiac Patches to Treat Myocardial Infarctions. **2018**, 141-175	

342	Prevascularization of collagen-glycosaminoglycan scaffolds: stromal vascular fraction versus adipose tissue-derived microvascular fragments. **2018**, 12, 24	24
341	Biophysical Regulation of Vascular Differentiation and Assembly. **2018**,	1
340	Hypoxia Impairs Initial Outgrowth of Endothelial Colony Forming Cells and Reduces Their Proliferative and Sprouting Potential. **2018**, 5, 356	4
339	Engineering an Environment for the Study of Fibrosis: A 3D Human Muscle Model with Endothelium Specificity and Endomysium. **2018**, 25, 3858-3868.e4	31
338	Long-Term High-Density Extracellular Recordings Enable Studies of Muscle Cell Physiology. **2018**, 9, 1424	3
337	Promoted Angiogenesis and Osteogenesis by Dexamethasone-loaded Calcium Phosphate Nanoparticles/Collagen Composite Scaffolds with Microgroove Networks. **2018**, 8, 14143	13
336	Channels in a porous scaffold: a new player for vascularization. **2018**, 13, 705-715	27
335	Protease-Sensitive Hydrogel Biomaterials with Tunable Modulus and Adhesion Ligand Gradients for 3D Vascular Sprouting. **2018**, 19, 4168-4181	13
334	Use of Matrix and Seeding With Cells for Vasculature of Organs. **2018**, 425-425	
333	3D skeletal muscle fascicle engineering is improved with TGF-β treatment of myogenic cells and their co-culture with myofibroblasts. **2018**, 6, e4939	14
332	Biomedical applications of magneto-responsive scaffolds. **2018**, 11, 5049-5064	38
331	3D biofabrication of vascular networks for tissue regeneration: A report on recent advances. **2018**, 8, 277-296	86
330	Angiogenic Self-Assembling Peptide Scaffolds for Functional Tissue Regeneration. **2018**, 19, 3597-3611	24
329	Strategies for directing cells into building functional hearts and parts. **2018**, 6, 1664-1690	15
328	Bioengineering strategies to accelerate stem cell therapeutics. **2018**, 557, 335-342	222
327	Improved Left Ventricular Aneurysm Repair with Cell- and Cytokine-Seeded Collagen Patches. **2018**, 2018, 4717802	8
326	Response of hPDLSCs on 3D printed PCL/PLGA composite scaffolds in vitro. **2018**, 18, 1335-1344	13
325	3D and 4D Bioprinting of the Myocardium: Current Approaches, Challenges, and Future Prospects. **2018**, 2018, 6497242	48

324	3D bioprinting of functional tissue models for personalized drug screening and in vitro disease modeling. **2018**, 132, 235-251	201
323	Stiffness modification of photopolymerizable gelatin-methacrylate hydrogels influences endothelial differentiation of human mesenchymal stem cells. **2018**, 12, 2099-2111	27
322	Gene Therapy in Reconstructive and Regenerative Surgery. **2018**,	
321	3D bioprinting of tissues and organs for regenerative medicine. **2018**, 132, 296-332	232
320	Promotion of Vascular Morphogenesis of Endothelial Cells Co-Cultured with Human Adipose-Derived Mesenchymal Stem Cells Using Polycaprolactone/Gelatin Nanofibrous Scaffolds. **2018**, 8,	29
319	Decellularized Diaphragmatic Muscle Drives a Constructive Angiogenic Response In Vivo. **2018**, 19,	17
318	Induced neuro-vascular interactions robustly enhance functional attributes of engineered neural implants. **2018**, 180, 1-11	5
317	Reduced graphene oxide-loaded nanocomposite scaffolds for enhancing angiogenesis in tissue engineering applications. **2018**, 5, 172017	35
316	Human tissue-engineered skeletal muscle: a novel 3D in vitro model for drug disposition and toxicity after intramuscular injection. **2018**, 8, 12206	26
315	Gene Therapy in Skeletal Muscle Repair and Regeneration. **2018**, 49-69	
314	Innervation of an engineered muscle graft for reconstruction of muscle defects. **2019**, 19, 37-47	11
313	Intelligent Surfaces for Cell Sheet Engineering. **2019**, 469-484	2
312	Cardiac Tissue. **2019**, 1073-1099	3
311	A Versatile Biosynthetic Hydrogel Platform for Engineering of Tissue Analogues. **2019**, 8, e1900979	34
310	Chemical and Biological Approaches to Regenerative Medicine and Tissue Engineering. **2019**, 03, 122-128	3
309	Medicinal Biotechnology for Disease Modeling, Clinical Therapy, and Drug Discovery and Development. **2019**, 89-128	3
308	Introduction to Biotech Entrepreneurship: From Idea to Business. **2019**,	
307	Fabrication Techniques for Vascular and Vascularized Tissue Engineering. **2019**, 8, e1900742	35

306	Oxygen and nutrient delivery in tissue engineering: Approaches to graft vascularization. **2019**, 13, 1815-1829	45
305	Bioprinting Approaches to Engineering Vascularized 3D Cardiac Tissues. **2019**, 21, 90	18
304	Nano/microscale topographically designed alginate/PCL scaffolds for inducing myoblast alignment and myogenic differentiation. **2019**, 223, 115041	29
303	Direct-write and sacrifice-based techniques for vasculatures. **2019**, 104, 109936	9
302	Vascular Pedicle and Microchannels: Simple Methods Toward Effective In Vivo Vascularization of 3D Scaffolds. **2019**, 8, e1901106	10
301	The fabrication of uniaxially aligned micro-textured polycaprolactone struts and application for skeletal muscle tissue regeneration. **2019**, 11, 025005	12
300	Plant seed-inspired cell protection, dormancy, and growth for large-scale biofabrication. **2019**, 11, 025008	12
299	Mature vessel networks in engineered tissue promote graft-host anastomosis and prevent graft thrombosis. **2019**, 116, 2955-2960	55
298	Biofabrication of thick vascularized neo-pedicle flaps for reconstructive surgery. **2019**, 211, 84-122	0
297	Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. **2019**, 2, 170	41
296	Enzymatically-degradable alginate hydrogels promote cell spreading and in vivo tissue infiltration. **2019**, 217, 119294	53
295	Tissue Engineering for Clean Meat Production. **2019**, 3,	58
294	Tissue Engineering of the Microvasculature. **2019**, 9, 1155-1212	9
293	Engineering the vasculature for islet transplantation. **2019**, 95, 131-151	30
292	Skeletal myotube formation enhanced through fibrillated collagen nanofibers coated on a 3D-printed polycaprolactone surface. **2019**, 181, 408-415	5
291	Photosensitive Hydrogel Creates Favorable Biologic Niches to Promote Spinal Cord Injury Repair. **2019**, 8, e1900013	33
290	Engineering blood vessels and vascularized tissues: technology trends and potential clinical applications. **2019**, 133, 1115-1135	38
289	Calcium phosphate cement scaffold with stem cell co-culture and prevascularization for dental and craniofacial bone tissue engineering. **2019**, 35, 1031-1041	32

288	Co-culture of human umbilical vein endothelial cells and human bone marrow stromal cells into a micro-cavitary gelatin-methacrylate hydrogel system to enhance angiogenesis. **2019**, 102, 906-916	18
287	Engineering complex muscle-tissue interfaces through microfabrication. **2019**, 11, 032004	10
286	Alginate Hydrogel and Aerogel. **2019**, 59-77	
285	Allogenic tissue-specific decellularized scaffolds promote long-term muscle innervation and functional recovery in a surgical diaphragmatic hernia model. **2019**, 89, 115-125	15
284	Recent advances in 3D printing: vascular network for tissue and organ regeneration. **2019**, 211, 46-63	50
283	Inorganic composites in biomedical engineering. **2019**, 47-80	1
282	3D Printing of Personalized Thick and Perfusable Cardiac Patches and Hearts. **2019**, 6, 1900344	387
281	Fabrication of Perfusable Pseudo Blood Vessels by Controlling Sol-Gel Transition of Gellan Gum Templates. **2019**, 5, 5637-5643	9
280	Engineering Biomimetic Materials for Skeletal Muscle Repair and Regeneration. **2019**, 8, e1801168	47
279	Quantification of human neuromuscular function through optogenetics. **2019**, 9, 1232-1246	30
278	Coculture with monocytes/macrophages modulates osteogenic differentiation of adipose-derived mesenchymal stromal cells on poly(lactic-co-glycolic) acid/polycaprolactone scaffolds. **2019**, 13, 785-798	11
277	Cellular Based Strategies for Microvascular Engineering. **2019**, 15, 218-240	10
276	Emergence of Three Dimensional Printed Cardiac Tissue: Opportunities and Challenges in Cardiovascular Diseases. **2019**, 15, 188-204	6
275	Tissue Engineering in Oral and Maxillofacial Surgery. **2019**,	
274	Enhanced Host Neovascularization of Prevascularized Engineered Muscle Following Transplantation into Immunocompetent versus Immunocompromised Mice. **2019**, 8,	9
273	Cell-Electrospinning and Its Application for Tissue Engineering. **2019**, 20,	50
272	Microfluidic devices for disease modeling in muscle tissue. **2019**, 198, 250-258	11
271	Recovery of blood flow regulation in microvascular resistance networks during regeneration of mouse gluteus maximus muscle. **2019**, 597, 1401-1417	5

270	Pre-vascularized dermis model for fast and functional anastomosis with host vasculature. **2019**, 192, 159-170	27
269	Efficiency of coculture with angiogenic cells or physiological BMP-2 administration on improving osteogenic differentiation and bone formation of MSCs. **2019**, 107, 643-653	12
268	Alginate Materials and Dental Impression Technique: A Current State of the Art and Application to Dental Practice. **2018**, 17,	39
267	Thermally-triggered fabrication of cell sheets for tissue engineering and regenerative medicine. **2019**, 138, 276-292	45
266	Vascular Tissue Engineering Using Scaffold-Free Prevascular Endothelial-Fibroblast Constructs. **2019**, 8, 1-15	10
265	Stem-cell based organ-on-a-chip models for diabetes research. **2019**, 140, 101-128	36
264	Myogenesis. **2019**,	0
263	Coculture Method to Obtain Endothelial Networks Within Human Tissue-Engineered Skeletal Muscle. **2019**, 1889, 169-183	8
262	Bioengineering human vascular networks: trends and directions in endothelial and perivascular cell sources. **2019**, 76, 421-439	25
261	Engineering vascularized skeletal muscle tissue with transcriptional factor ETV2-induced autologous endothelial cells. **2019**, 10, 217-222	6
260	High-Throughput Scaffold System for Studying the Effect of Local Geometry and Topology on the Development and Orientation of Sprouting Blood Vessels. **2020**, 30, 1901335	11
259	Biofabrication of tissue perfusion systems and microvasculatures. **2020**, 205-225	0
258	Skeletal muscle cell transplantation: models and methods. **2020**, 41, 297-311	12
257	A novel decellularized skeletal muscle-derived ECM scaffolding system for in situ muscle regeneration. **2020**, 171, 77-85	21
256	Improving cancer therapy through the nanomaterials-assisted alleviation of hypoxia. **2020**, 228, 119578	82
255	From Engineered Tissues and Microfludics to Human Eyes-On-A-Chip. **2020**, 36, 4-6	2
254	Combined Effects of Electrical Stimulation and Protein Coatings on Myotube Formation in a Soft Porous Scaffold. **2020**, 48, 734-746	4
253	Vascularized and Innervated Skeletal Muscle Tissue Engineering. **2020**, 9, e1900626	44

252	Vascularization of tissue-engineered skeletal muscle constructs. **2020**, 235, 119708	31
251	Glass-activated regeneration of volumetric muscle loss. **2020**, 103, 306-317	11
250	Vascularization in tissue engineering: fundamentals and state-of-art. **2020**, 2,	40
249	Updates on the applications of iron-based nanoplatforms in tumor theranostics. **2020**, 589, 119815	2
248	Additive manufacturing of trabecular tantalum scaffolds by laser powder bed fusion: Mechanical property evaluation and porous structure characterization. **2020**, 170, 110694	9
247	Embedding cells within nanoscale, rapidly mineralizing hydrogels: A new paradigm to engineer cell-laden bone-like tissue. **2020**, 212, 107636	5
246	Cardiovascular tissue regeneration system based on multiscale scaffolds comprising double-layered hydrogels and fibers. **2020**, 10, 20321	8
245	Advances in biomaterials for skeletal muscle engineering and obstacles still to overcome. **2020**, 7, 100069	18
244	Stem Cell-Based and Tissue Engineering Approaches for Skeletal Muscle Repair. **2020**, 1-62	1
243	An overview of extrusion-based bioprinting with a focus on induced shear stress and its effect on cell viability. **2020**, 20, e00093	29
242	Injectable pre-cultured tissue modules catalyze the formation of extensive functional microvasculature in vivo. **2020**, 10, 15562	5
241	Cultured Meat: Meat Industry Hand in Hand with Biomedical Production Methods. **2020**, 12, 498-519	4
240	Fabrication of Spheroids with Dome-Shaped Endothelial Tube Networks by an Adhesive Culture System. **2020**, 4, e2000120	1
239	Prevascularized Scaffolds Bearing Human Dental Pulp Stem Cells for Treating Complete Spinal Cord Injury. **2020**, 9, e2000974	18
238	Paramagnetic Functionalization of Biocompatible Scaffolds for Biomedical Applications: A Perspective. **2020**, 7,	2
237	Engineering pericyte-supported microvascular capillaries in cell-laden hydrogels using stem cells from the bone marrow, dental pulp and dental apical papilla. **2020**, 10, 21579	8
236	From Grafts to Human Bioengineered Vascularized Skin Substitutes. **2020**, 21,	15
235	The effects of human platelet lysate versus commercial endothelial growth medium on the endothelial differentiation potential of human amniotic fluid mesenchymal stem cells. **2020**, 6, e04873	0

234	Biomimetic Design for Bio-Matrix Interfaces and Regenerative Organs. **2021**, 27, 411-429	1
233	Functional evaluation of prevascularization in one-stage versus two-stage tissue engineering approach of human bio-artificial muscle. **2020**, 12, 035021	7
232	The emerging role of microfluidics in multi-material 3D bioprinting. **2020**, 20, 2044-2056	34
231	Novel Cell-Based and Tissue Engineering Approaches for Induction of Angiogenesis as an Alternative Therapy for Diabetic Retinopathy. **2020**, 21,	3
230	Introductory Chapter: Alginates - A General Overview. **2020**,	16
229	Melatonin-Based and Biomimetic Scaffold as MuscleECM Implant for Guiding Myogenic Differentiation of Volumetric Muscle Loss. **2020**, 30, 2002378	14
228	Direct-writing Process and in vivo Evaluation of Prevascularized Composite Constructs for Muscle Tissue Engineering Application. **2020**, 17, 457-468	7
227	Sulfated chitosan coated polylactide membrane enhanced osteogenic and vascularization differentiation in MC3T3-E1s and HUVECs co-cultures system. **2020**, 245, 116522	2
226	Guided vascularization in the rat heart leads to transient vessel patterning. **2020**, 4, 016105	4
225	Ectopic transient overexpression of facilitates BMP4-induced osteogenic transdifferentiation of human umbilical vein endothelial cells. **2020**, 11, 2041731420909208	6
224	Collagen Microfibers Induce Blood Capillary Orientation and Open Vascular Lumen. **2020**, 4, e2000038	16
223	Programmable antibiotic delivery to combat methicillin-resistant Staphylococcus aureus through precision therapy. **2020**, 321, 710-717	9
222	Grafting of 3D Bioprinting to In Vitro Drug Screening: A Review. **2020**, 9, e1901773	36
221	Micro/nano-hierarchical scaffold fabricated using a cell electrospinning/3D printing process for co-culturing myoblasts and HUVECs to induce myoblast alignment and differentiation. **2020**, 107, 102-114	40
220	Wholly vascularized millimeter-sized engineered tissues by cell-sized microscaffolds. **2020**, 6, 100054	11
219	Transient Support from Fibroblasts is Sufficient to Drive Functional Vascularization in Engineered Tissues. **2020**, 30, 2003777	19
218	Pre-innervated tissue-engineered muscle promotes a pro-regenerative microenvironment following volumetric muscle loss. **2020**, 3, 330	19
217	Nanoscale 3D Bioprinting for Osseous Tissue Manufacturing. **2020**, 15, 215-226	10

216	Neural cell integration into 3D bioprinted skeletal muscle constructs accelerates restoration of muscle function. **2020**, 11, 1025	70
215	Biofabrication Strategies and Engineered In Vitro Systems for Vascular Mechanobiology. **2020**, 9, e1901255	21
214	Organs-on-a-chip as model systems for multifactorial musculoskeletal diseases. **2020**, 63, 79-88	20
213	From mathematical modeling and machine learning to clinical reality. **2020**, 37-51	3
212	Embryonic stem cells as a cell source for tissue engineering. **2020**, 467-490	5
211	Cultured meat□ humane meat production system. **2020**, 1369-1388	4
210	Textured soy protein scaffolds enable the generation of three-dimensional bovine skeletal muscle tissue for cell-based meat. **2020**, 1, 210-220	66
209	Rapid prototyping fabrication of soft and oriented polyester scaffolds for axonal guidance. **2020**, 251, 120062	21
208	Effects of External Stimulators on Engineered Skeletal Muscle Tissue Maturation. **2021**, 8, 2001167	16
207	Strategies for re-vascularization and promotion of angiogenesis in trauma and disease. **2021**, 269, 120628	13
206	Computer-Aided Tissue Engineering. **2021**,	
205	Rapid Fabrication of Cell-Laden Microfibers for Construction of Aligned Biomimetic Tissue. **2020**, 8, 610249	3
204	In Vitro and In Vivo Approaches for Prevascularization of Three-Dimensional Engineered Tissues. **2021**, 449-474	
203	Microsurgical Approaches for In Vivo Prevascularization. **2021**, 503-520	
202	Cell-Laden Gradient Hydrogel Scaffolds for Neovascularization of Engineered Tissues. **2021**, 10, e2001706	2
201	Future Directions and Requirements for Tissue Engineering Biomaterials. **2021**, 195-195	2
200	Stem Cell-Based and Tissue Engineering Approaches for Skeletal Muscle Repair. **2021**, 429-488	
199	Co-culture Systems for Vasculogenesis. **2021**, 385-413	

198	Angiogenesis: Basics of Vascular Biology. **2021**, 3-31	1
197	From Autologous Flaps to Engineered Vascularized Grafts for Bone Regeneration. **2021**, 521-554	
196	Microvascular Networks and Models: In Vitro Formation. **2021**, 345-383	0
195	Fabrication and characterization of alginate-based green materials. **2021**, 85-108	
194	Application of Adipose-Derived Stem Cells in Treatment of Bone Tissue Defects.	1
193	Engineering Human Cardiac Muscle Patch Constructs for Prevention of Post-infarction LV Remodeling. **2021**, 8, 621781	6
192	Regenerative Medicine Under the Control of 3D Scaffolds: Current State and Progress of Tissue Scaffolds. **2021**, 16, 209-229	5
191	Tissue-Engineered Skeletal Muscle Models to Study Muscle Function, Plasticity, and Disease. **2021**, 12, 619710	5
190	Recent advances in 3D bioprinting of musculoskeletal tissues. **2020**,	17
189	Integrating biomaterials and food biopolymers for cultured meat production. **2021**, 124, 108-129	18
188	Engineered aligned endothelial cell structures in tethered collagen hydrogels promote peripheral nerve regeneration. **2021**, 126, 224-237	12
187	3D bioprinting of prevascularised implants for the repair of critically-sized bone defects. **2021**, 126, 154-169	20
186	Current Strategies for the Regeneration of Skeletal Muscle Tissue. **2021**, 22,	4
185	Engineering skeletal muscle: Building complexity to achieve functionality. **2021**, 119, 61-69	2
184	Functionalizing biomaterials to promote neurovascular regeneration following skeletal muscle injury. **2021**, 320, C1099-C1111	1
183	3D Collagen Hydrogel Promotes In Vitro Langerhans Islets Vascularization through ad-MVFs Angiogenic Activity. **2021**, 9,	1
182	Composite Materials by Building Block Chemistry Using Weak Interaction. **2021**, 94, 1903-1921	6
181	Effect of Pore Size of Honeycomb-Patterned Polymer Film on Spontaneous Formation of 2D Micronetworks by Coculture of Human Umbilical Vein Endothelial Cells and Mesenchymal Stem Cells. **2021**, 21, e2100113	3

180	meat: a promising solution for sustainability of meat sector. **2021**, 63, 693-724	4
179	Technical requirements for cultured meat production: a review. **2021**, 63, 681-692	3
178	Bioengineering approaches to treat the failing heart: from cell biology to 3D printing. **2021**,	7
177	Methacrylic acid-based hydrogels enhance skeletal muscle regeneration after volumetric muscle loss in mice. **2021**, 275, 120909	5
176	Colonization versus encapsulation in cell-laden materials design: porosity and process biocompatibility determine cellularization pathways. **2021**, 379, 20200344	3
175	Spheroid Coculture of Human Gingiva-Derived Progenitor Cells With Endothelial Cells in Modified Platelet Lysate Hydrogels. **2021**, 9, 739225	2
174	Adipogenic Differentiation Alters Properties of Vascularized Tissue-Engineered Skeletal Muscle. **2021**,	0
173	Implantable Microfluidic Device: An Epoch of Technology. **2021**,	
172	3D Bioprinting of Engineered Tissue Flaps with Hierarchical Vessel Networks (VesselNet) for Direct Host-To-Implant Perfusion. **2021**, 33, e2102661	11
171	Bioprinted hASC-laden structures with cell-differentiation niches for muscle regeneration. **2021**, 419, 129570	6
170	Biofabrication of 3D Human Muscle Model with Vascularization and Endomysium. **2022**, 2373, 213-230	0
169	Replace and repair: Biomimetic bioprinting for effective muscle engineering. **2021**, 5, 031502	4
168	Biofabrication of natural hydrogels for cardiac, neural, and bone Tissue engineering Applications. **2021**, 6, 3904-3923	29
167	Cardiac Fibroblast and Cardiomyocyte Growth. **2021**, 41-53	0
166	Advanced Hybrid Conducting Polymers: Tissue Engineering Aspects. **2021**, 249-269	1
165	Chapter 17:Clinical Application and Regulation of Bioprinting Biomaterials Focusing on Hydrogels. **2021**, 409-438	
164	PEG/HA Hybrid Hydrogels for Biologically and Mechanically Tailorable Bone Marrow Organoids. **2020**, 30, 1910282	20
163	Tissue Engineering for Facial Reconstruction. **2011**, 447-462	2

162	Bioprinting of Complex Vascularized Tissues. **2021**, 2147, 163-173	0
161	Hepatic Tissue Engineering. **2011**, 321-342	5
160	Cell tri-culture for cardiac vascularization. **2014**, 1181, 131-7	14
159	Magnetically actuated alginate scaffold: a novel platform for promoting tissue organization and vascularization. **2014**, 1181, 83-95	14
158	Embryonic Stem Cells for Myocardial Repair. **2007**, 101-114	1
157	Tissue Engineering Strategies for Cardiac Regeneration. **2011**, 443-475	1
156	Engineering Functional Bone Grafts. **2011**, 221-235	3
155	In Vitro and In Vivo Approaches for Pre-vascularization of 3-Dimensional Engineered Tissues. **2017**, 1-27	2
154	Co-Culture Systems for Vasculogenesis. **2017**, 1-29	4
153	Three-Dimensional Bioprinting in Regenerative Medicine. **2015**, 109-122	1
152	Muscle Tissue Engineering. **2009**, 243-253	2
151	Tissue Engineering Application in General Surgery. **2009**, 855-867	1
150	Biomaterials Approaches in Vascular Engineering: a Review of Past and Future Trends. **2011**, 457-487	1
149	Medical Applications of Cell Sheet Engineering. **2011**, 405-419	2
148	Nanofiber composites in skeletal muscle tissue engineering. **2017**, 369-394	3
147	Bioprinting of 3D in vitro skeletal muscle models: A review. **2020**, 193, 108794	27
146	Development of a Tough, Self-Healing Polyampholyte Terpolymer Hydrogel Patch with Enhanced Skin Adhesion via Tuning the Density and Strength of Ion-Pair Associations. **2021**, 13, 8889-8900	6
145	Chapter 9:3D Tissue Modelling of Skeletal Muscle Tissue. **2019**, 184-215	2

144	Osteopontin sequence modified mesoporous calcium silicate scaffolds to promote angiogenesis in bone tissue regeneration. **2020**, 8, 5849-5861	8
143	In VivoPulmonary Tissue Engineering: Contribution of Donor-Derived Endothelial Cells to Construct Vascularization*. 110306233438005	1
142	The Influence of Serum-Free Culture Conditions on Skeletal Muscle Differentiation in a Tissue-Engineered Model. **2008**, 14, 161-171	2
141	Tissue Engineering by Self-Assembly of Cells Printed into Topologically Defined Structures. 110306233438005	5
140	Vascular Endothelial Growth Factor Induction of Muscle-Derived Stem Cells Enhances Vascular Phenotype While Preserving Myogenic Potential. **2017**, 79, 404-409	5
139	Integrating Engineered Macro Vessels with Self-assembled Capillaries in 3D Implantable Tissue for Promoting Vascular Integration In-vivo.	1
138	Pre-Innervated Tissue Engineered Muscle Promotes a Pro-Regenerative Microenvironment Following Volumetric Muscle Loss.	2
137	In Vivo Vascularization for Large-Volume Soft Tissue Engineering. **2014**, 343-362	1
136	In vitro model of vascularized bone: synergizing vascular development and osteogenesis. **2011**, 6, e28352	90
135	Engineered vascular beds provide key signals to pancreatic hormone-producing cells. **2012**, 7, e40741	47
134	Endothelial differentiation of mesenchymal stromal cells. **2012**, 7, e46842	136
133	Vascularized Organoids: A More Complete Model. **2021**, 14, 127-137	5
132	Tissue Engineering: Challenges and Selected Application. **2017**, 3,	2
131	Strategies for vascularization of polymer scaffolds. **2010**, 58, 838-44	13
130	Animal-free Meat Biofabrication. **2011**, 6, 441-459	43
129	Imaging Approaches in Functional Assessment of Implantable Myogenic Biomaterials and Engineered Muscle Tissue. **2015**, 25, 4847	13
128	A novel strategy for engineering vascularized grafts in vitro. **2010**, 2, 93-6	3
127	Differentiation of umbilical cord lining membrane-derived mesenchymal stem cells into endothelial-like cells. **2014**, 18, 67-75	18

126	Recent Applications of Polymeric Biomaterials and Stem Cells in Tissue Engineering and Regenerative Medicine. **2014**, 38, 113-128	6
125	Cell-assembled extracellular matrix (CAM): a human biopaper for the biofabrication of pre-vascularized tissues able to connect to the host circulation. **2021**, 14,	0
124	Engineering injectable vascularized tissues from the bottom-up: Dynamics of in-gel extra-spheroid dermal tissue assembly. **2021**, 279, 121222	1
123	Spatiotemporally controlled, aptamers-mediated growth factor release locally manipulates microvasculature formation within engineered tissues.. **2022**, 12, 71-84	1
122	The Usages and Potential Uses of Alginate for Healthcare Applications. **2021**, 8, 719972	4
121	Bionic grandma. **2005**, 2005, ns3	
120	Mesenchymal Stem Cells Enhance Angiogenesis in Mechanically Viable Prevascularized Tissues via Early Matrix Metalloproteinase Upregulation. **2006**, 060928131519005	
119	Current State of the Art in Myocardial Tissue Engineering. **2007**, 070126052142001	
118	Tissue-Engineered Cardiovascular Products. **2007**, 1237-1251	
117	Cardiac Tissue. **2008**, 1038-1059	
116	Endothelial CellMatrix Interactions in Neovascularization. 110306233438005	
115	Nanotechnologies for Cardiovascular Tissue Engineering. **2008**, 311-328	
114	MSC Therapy in Animal Models and in Regenerative Medicine for Human Diseases. **2009**, 245-266	
113	Muscle Regeneration: Research for the Treatment of Fecal Incontinence. **2010**, 26, 1	3
112	What Should We Print? Emerging Principles to Rationally Design Tissues Prone to Self-Organization. **2010**, 163-171	
111	Endothelial Progenitor Cells for Tissue Engineering and Tissue Regeneration. **2010**, 45-54	
110	Chapter 13. Stem Cell-based Replacement Tissue for Heart Repair. **2010**, 273-295	
109	Tissue Engineering for Stem Cell Mediated Regenerative Medicine. 377-399	

108 Hypoxia and Matrix Manipulation for Vascular Engineering. **2011**, 127-165

107 Skeletal Muscle Engineering: The Need for a Suitable Niche. **2011**, 197-209

106 Skeletal Muscle Stem Cells. **2011**, 347-363

105 Embryonic Stem Cells. **2011**, 3-30

104 Angiogenesis control in spine regeneration. **2012**, 510-537e

103 Endothelialization of Acellular Porcine ECM with Chemical Modification. **2012**, 363-368 0

102 The Potential Use of Three-Dimensional Cellular Multilayers as a Blood Vessel Model. **2014**, 95-129

101 Biomaterials as Artificial Niches for Pluripotent Stem Cell Engineering. 21-43

100 Tissue Engineering for Facial Plastic Surgery. **2014**, 1105-1132

99 Microenvironment Applications. 4652-4670

98 Biomedical Advances in Three Dimensions: An Overview of Human Cellular Studies in Space and Spaceflight Analogues. **2016**, 83-92

97 Skeletal Muscle Culture Under Spaceflight Conditions. **2016**, 151-174

96 Angiogenesis: Basics of Vascular Biology. **2016**, 1-29 0

95 In Vitro Vascularization: Tissue Engineering Constructs. 4043-4062

94 From Autologous Flaps to Engineered Vascularized Grafts for Bone Regeneration. **2017**, 1-34

93 Biotechnological Potential of Stem Cells. **2017**, 3, 1

92 Wachstumsfaktoren unter besonderer Ber□ksichtigung des muskuloskelettalen Systems. **2018**, 171-228

91 In vitroVascularization: Tissue Engineering Constructs. **2017**, 723-742

90	Current Developments and Future Perspectives of Tissue Engineering and Regenerative Medicine. **2018**, 3-14	
89	Bioreactors for Regenerative Medicine in Urology. **2018**, 87-104	
88	Microvascular Networks and Models, In vitro Formation. **2018**, 1-40	
87	Hypoxia and Matrix Manipulation for Vascular Engineering. **2018**, 73-119	
86	Angiogenesis mechanisms in transplantation of tissue-engineered constructions. **2018**, 19, 141-145	
85	Vascularization in Oral and Maxillofacial Tissue Engineering. **2019**, 97-122	
84	The Effect Of Ankaferd Blood Stopper As A Drug On Human Umbilical Vein Endothelial Cell Culture (Huvec).	
83	Recovery of cryo-injured rabbit urethras by biofabricated C-shaped adipose-derived mesenchymal cell structures.	
82	Engineered Aligned Endothelial Cell Structures in Tethered Collagen Hydrogels Promote Peripheral Nerve Regeneration.	
81	In vitro disease and organ model. **2020**, 629-668	
80	Vascularization of 3D Engineered Tissues. **2020**, 1-18	
79	Vascularization of 3D Engineered Tissues. **2020**, 469-486	
78	Musculoskeletal regenerative nanomedicine: Current therapies, translational hurdles, and future directions. **2020**, 237-272	
77	Regenerative Engineering: Current Applications and Future Perspectives. **2021**, 8, 731031	1
76	Scaffold biomaterials and nano-based therapeutic strategies for skeletal muscle regeneration. **2021**, 16, 2521-2538	
75	Impact of Electrospun Biomimetic Extracellular Environment on Proliferation and Intercellular Communication of Muscle Precursor Cells. 247-265	
74	Bioengineering to enhance progenitor cell therapeutics. **2009**, 36, 140-4	5
73	Prevascularized mesenchymal stem cell-sheets increase survival of random skin flaps in a nude mouse model. **2019**, 11, 1403-1416	9

72	Role of Vascular Endothelial Growth Factor and Human Umbilical Vein Endothelial Cells in Designing An Vascular-Muscle Cellular Model Using Adipose-Derived Stem Cells. **2020**, 22, 19-28	
71	Integrating engineered macro vessels with self-assembled capillaries in 3D implantable tissue for promoting vascular integration in-vivo. **2021**, 280, 121286	4
70	Recent advances on bioengineering approaches for fabrication of functional engineered cardiac pumps: A review. **2021**, 280, 121298	7
69	Pro-angiogenic approach for skeletal muscle regeneration. **2021**, 1866, 130059	1
68	Scaffolding Biomaterials for 3D Cultivated Meat: Prospects and Challenges. **2021**, 9, e2102908	10
67	Engineered Customizable Microvessels for Progressive Vascularization in Large Regenerative Implants. **2021**, e2101836	0
66	A strategy to engineer vascularized tissue constructs by optimizing and maintaining the geometry. **2021**,	1
65	Nano-sized graphene oxide coated nanopillars on microgroove polymer arrays that enhance skeletal muscle cell differentiation. **2021**, 8, 40	5
64	GelMA-Alginate Core-Shell Microcapsules as Efficient Delivery Platform For Prevascularized Microtissues in Endodontic Regeneration.	
63	Exploring the potential of stem cell-based therapy for aesthetic and plastic surgery.. **2021**, PP,	
62	The Application of Nanomaterial in Skeletal Muscle Regeneration. **2021**, 37-85	
61	The Role of Biomaterials in Peripheral Nerve and Spinal Cord Injury: A Review.. **2022**, 23,	3
60	Gelatin Methacrylate Hydrogel for Tissue Engineering Applications-A Review on Material Modifications.. **2022**, 15,	4
59	Support Bath-Free Vertical Extrusion Cryo(bio)printing for Anisotropic Tissue Manufacturing.. **2021**, e2108931	6
58	Development of a Novel Microfluidic Co-culture model to study Organoid Vascularization.	
57	Cell-Seeded Biomaterial Scaffolds: The Urgent Need for Unanswered Accelerated Angiogenesis.. **2022**, 17, 1035-1068	1
56	Gelatin methacryloyl-alginate core-shell microcapsules as efficient delivery platforms for prevascularized microtissues in endodontic regeneration.. **2022**,	5
55	Myoblast 3D bioprinting to burst in vitro skeletal muscle differentiation.. **2022**,	3

54	The Evolution of Complex Muscle Cell In Vitro Models to Study Pathomechanisms and Drug Development of Neuromuscular Disease.. **2022**, 11,	
53	Immunoengineering strategies to enhance vascularization and tissue regeneration.. **2022**, 184, 114233	1
52	Heterotypic Multicellular Spheroids as Experimental and Preclinical Models of Sprouting Angiogenesis.. **2021**, 11,	0
51	Microcomputed Tomography-Based Analysis of Neovascularization within Bioengineered Vascularized Tissues.. **2021**,	2
50	Consumer Acceptance and Production of In Vitro Meat: A Review. **2022**, 14, 4910	
49	Data_Sheet_1.PDF. **2018**,	
48	Data_Sheet_2.PDF. **2018**,	
47	Image_1.JPEG. **2018**,	
46	Image_2.JPEG. **2018**,	
45	Table_1.pdf. **2018**,	
44	Image_1.TIF. **2018**,	
43	Table_1.docx. **2018**,	
42	Video_1.MOV. **2018**,	
41	Bioengineered Hierarchical Bonelike Compartmentalized Microconstructs Using Nanogrooved Microdiscs.. **2022**,	0
40	Hydrogel Scaffolds Based on Alginate, Gelatin, and 2-Hydroxyethyl Methacrylate for Tissue Regeneration. **2022**, 173-204	
39	3D Bioprinting of Human Hollow Organs.. **2022**, 23, 139	2
38	Cellular orientational fluctuations, rotational diffusion and nematic order under periodic driving.	0
37	Engineering the multiscale complexity of vascular networks.	0

36	Contractile force assessment methods for in vitro skeletal muscle tissues. 11,	0
35	Biomimetic Surface Topography from the Rubus fruticosus Leaf as a Guidance of Angiogenesis in Tissue Engineering Applications.	0
34	Introduction. **2022**, 1-15	
33	Cell patterning. **2022**, 347-382	
32	Angiogenesis and vasculogenesis: Status in tissue engineering. **2022**, 1-13	
31	Construction and Properties of Simvastatin and Calcium Phosphate Dual-Loaded Coaxial Fibrous Membranes with Osteogenic and Angiogenic Functions.	
30	Borate Bioactive Glasses (BBG): Bone Regeneration, Wound Healing Applications, and Future Directions.	1
29	Temporal Control over Macrophage Phenotype and the Host Response via Magnetically Actuated Scaffolds.	
28	Tri-culture of spatially organizing human skeletal muscle cells, endothelial cells, and fibroblasts enhances contractile force and vascular perfusion of skeletal muscle tissues. **2022**, 36,	0
27	Harvest of quality-controlled bovine myogenic cells and biomimetic bovine muscle tissue engineering for sustainable meat production. **2022**, 287, 121649	1
26	Biomaterial-based 3D bioprinting strategy for orthopedic tissue engineering. **2022**,	2
25	Advancing Engineered Heart Muscle Tissue Complexity with Hydrogel Composites. 2200067	1
24	Amniotic Membrane Scaffolds Support Organized Muscle Regeneration in A Murine Volumetric Muscle Defect Model. **2022**, 10, e4499	0
23	Efficient co-isolation of microvascular endothelial cells and satellite cell-derived myoblasts from human skeletal muscle. 10,	0
22	Inflammatory Immune Responses Trigger Rejection of Allogeneic Fibroblasts Transplanted into Mouse Skin. **2022**, 31, 096368972211138	0
21	Cellular orientational fluctuations, rotational diffusion and nematic order under periodic driving. **2022**, 18, 7091-7102	0
20	Multiscale engineered human skeletal muscles with perfusable vasculature and microvascular network recapitulating the fluid compartments.	0
19	Preclinical research studies for treating severe muscular injuries: focus on tissue-engineered strategies. **2022**,	0

18	Isolation of ready-made rat microvessels and its applications in effective in vivo vascularization and in angiogenic studies in vitro.	0
17	Translating musculoskeletal bioengineering into tissue regeneration therapies. **2022**, 14,	0
16	Harnessing the synergy of perfusable muscle flap matrix and adipose-derived stem cells for prevascularization and macrophage polarization to reconstruct volumetric muscle loss. **2023**, 22, 588-614	0
15	Conducting Polymers: A Versatile Material for Biomedical Applications. **2022**, 7,	0
14	Organotypic cultures as aging associated disease models. **2022**, 14, 9338-9383	1
13	3D soft tissue printing from vision to reality review of current concepts.	0
12	Engineering transplantable human lymphatic and blood capillary networks in a porous scaffold. **2022**, 13, 204173142211409	1
11	3D bioprinting vascular networks in suspension baths. **2023**, 30, 101729	0
10	Hydrogel-Based Tissue-Mimics for Vascular Regeneration and Tumor Angiogenesis. **2023**, 143-180	0
9	The Current Status, Prospects, and Challenges of Shape Memory Polymers Application in Bone Tissue Engineering. **2023**, 15, 556	0
8	Recent Advances in Cell Sheet Engineering: From Fabrication to Clinical Translation. **2023**, 10, 211	0
7	Highly Parallel Tissue Grafting for Combinatorial In Vivo Screening.	0
6	Spatial control of self-organizing vascular networks with programmable aptamer-tethered growth factor photopatterning. **2023**, 19, 100551	0
5	Engineering branching morphogenesis using cell communication. **2023**, 30, e00261	0
4	Engineered tissue vascularization and engraftment depends on host model. **2023**, 13,	0
3	Construction of Engineered Muscle Tissue Consisting of Myotube Bundles in a Collagen Gel Matrix. **2023**, 9, 141	0
2	Tumor Therapy Strategies Based on Microenvironment-Specific Responsive Nanomaterials.	0
1	In vitro angiogenesis in response to biomaterial properties for bone tissue engineering: a review of the state of the art. **2023**, 10,	0