Antonios G Mikos

List of Publications by Year in Descending Order

234 papers	18,792 citations	71 h-index	134 g-index
245 ext. papers	21,011 ext. citations	9.2 avg, IF	7.09 L-index

#	Paper	IF	Citations
234	A dual-gelling poly(-isopropylacrylamide)-based ink and thermoreversible poloxamer support bath for high-resolution bioprinting.. *Bioactive Materials*, **2022**, 14, 302-312	16.7	1
233	Correlation of nuclear pIGF-1R/IGF-1R and YAP/TAZ in a tissue microarray with outcomes in osteosarcoma patients.. *Oncotarget*, **2022**, 13, 521-533	3.3	0
232	Stem cell-homing hydrogel-based miR-29b-5p delivery promotes cartilage regeneration by suppressing senescence in an osteoarthritis rat model.. *Science Advances*, **2022**, 8, eabk0011	14.3	2
231	Evidence-based biomaterials research. *Bioactive Materials*, **2022**, 15, 495-503	16.7	2
230	Evaluating the physicochemical effects of conjugating peptides into thermogelling hydrogels for regenerative biomaterials applications.. *International Journal of Energy Production and Management* , **2021**, 8, rbab073	5.3	2
229	Deep Learning for Automated Analysis of Cellular and Extracellular Components of the Foreign Body Response in Multiphoton Microscopy Images.. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 797555	5.8	1
228	Structural alignment guides oriented migration and differentiation of endogenous neural stem cells for neurogenesis in brain injury treatment. *Biomaterials*, **2021**, 280, 121310	15.6	2
227	Novel polymer-based system for intrauterine delivery of everolimus for anti-cancer applications. *Journal of Controlled Release*, **2021**, 339, 521-530	11.7	0
226	EGF-mediated suppression of cell extrusion during mucosal damage attenuates opportunistic fungal invasion. *Cell Reports*, **2021**, 34, 108896	10.6	3
225	Bioinspired electrospun dECM scaffolds guide cell growth and control the formation of myotubes. *Science Advances*, **2021**, 7,	14.3	6
224	Evaluation of tissue integration of injectable, cell-laden hydrogels of cocultures of mesenchymal stem cells and articular chondrocytes with an ex vivo cartilage explant model. *Biotechnology and Bioengineering*, **2021**, 118, 2958-2966	4.9	2
223	Bioprinted nanocomposite hydrogels: A proposed approach to functional restoration of skeletal muscle and vascular tissue following volumetric muscle loss. *Current Opinion in Pharmacology*, **2021**, 58, 35-43	5.1	0
222	Three-Dimensional Printing of Click Functionalized, Peptide Patterned Scaffolds for Osteochondral Tissue Engineering. *Bioprinting*, **2021**, 22, e00136-e00136	7	3
221	Transcriptional activators YAP/TAZ and AXL orchestrate dedifferentiation, cell fate, and metastasis in human osteosarcoma. *Cancer Gene Therapy*, **2021**, 28, 1325-1338	5.4	5
220	Development of a modular, biocompatible thiolated gelatin microparticle platform for drug delivery and tissue engineering applications. *International Journal of Energy Production and Management*, **2021**, 8, rbab012	5.3	3
219	Effect of 3D Printing Temperature on Bioactivity of Bone Morphogenetic Protein-2 Released from Polymeric Constructs. *Annals of Biomedical Engineering*, **2021**, 49, 2114-2125	4.7	3
218	Emerging strategies in reprogramming and enhancing the fate of mesenchymal stem cells for bone and cartilage tissue engineering. *Journal of Controlled Release*, **2021**, 330, 565-574	11.7	7

217	Bilayered, peptide-biofunctionalized hydrogels for in vivo osteochondral tissue repair. *Acta Biomaterialia*, **2021**, 128, 120-129	10.8	3
216	3D printed colloidal biomaterials based on photo-reactive gelatin nanoparticles. *Biomaterials*, **2021**, 274, 120871	15.6	4
215	Computational modeling identifies multitargeted kinase inhibitors as effective therapies for metastatic, castration-resistant prostate cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	1
214	Polymeric Systems for Bioprinting. *Chemical Reviews*, **2020**, 120, 10744-10792	68.1	68
213	Concurrent multi-lineage differentiation of mesenchymal stem cells through spatial presentation of growth factors. *Biomedical Materials (Bristol)*, **2020**, 15, 055035	3.5	4
212	An Ovine Model of Bioreactor-Based Bone Generation. *Tissue Engineering - Part C: Methods*, **2020**, 26, 384-396	2.9	2
211	Materials design for bone-tissue engineering. *Nature Reviews Materials*, **2020**, 5, 584-603	73.3	293
210	Tornadic Shear Stress Induces a Transient, Calcineurin-Dependent Hypervirulent Phenotype in Mucorales Molds. *MBio*, **2020**, 11,	7.8	4
209	Localized mandibular infection affects remote in vivo bioreactor bone generation. *Biomaterials*, **2020**, 256, 120185	15.6	3
208	Modeling the Tumor Microenvironment and Pathogenic Signaling in Bone Sarcoma. *Tissue Engineering - Part B: Reviews*, **2020**, 26, 249-271	7.9	9
207	Assessment methodologies for extrusion-based bioink printability. *Biofabrication*, **2020**, 12, 022003	10.5	94
206	Three-Dimensional Extrusion Printing of Porous Scaffolds Using Storable Ceramic Inks. *Tissue Engineering - Part C: Methods*, **2020**, 26, 292-305	2.9	4
205	Multimaterial Dual Gradient Three-Dimensional Printing for Osteogenic Differentiation and Spatial Segregation. *Tissue Engineering - Part A*, **2020**, 26, 239-252	3.9	14
204	Fiber engraving for bioink bioprinting within 3D printed tissue engineering scaffolds. *Bioprinting*, **2020**, 18,	7	12
203	A high-throughput approach to compare the biocompatibility of candidate bioink formulations. *Bioprinting*, **2020**, 17, e00068	7	6
202	Click functionalized, tissue-specific hydrogels for osteochondral tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2020**, 108, 684-693	5.4	12
201	3D Tissue-Engineered Tumor Model for Ewing's Sarcoma That Incorporates Bone-like ECM and Mineralization. *ACS Biomaterials Science and Engineering*, **2020**, 6, 539-552	5.5	8
200	Fast dissolving glucose porogens for early calcium phosphate cement degradation and bone regeneration. *Biomedical Materials (Bristol)*, **2020**, 15, 025002	3.5	6

199	A Rabbit Femoral Condyle Defect Model for Assessment of Osteochondral Tissue Regeneration. *Tissue Engineering - Part C: Methods*, **2020**, 26, 554-564	2.9	3
198	Biodegradable thermoresponsive polymers: Applications in drug delivery and tissue engineering. *Polymer*, **2020**, 211, 123063	3.9	38
197	Chondrogenesis of cocultures of mesenchymal stem cells and articular chondrocytes in poly(l-lysine)-loaded hydrogels. *Journal of Controlled Release*, **2020**, 328, 710-721	11.7	4
196	Nanomaterial Additives for Fabrication of Stimuli-Responsive Skeletal Muscle Tissue Engineering Constructs. *Advanced Healthcare Materials*, **2020**, 9, e2000730	10.1	15
195	Advances in biomaterials for skeletal muscle engineering and obstacles still to overcome. *Materials Today Bio*, **2020**, 7, 100069	9.9	18
194	Machine Learning-Guided Three-Dimensional Printing of Tissue Engineering Scaffolds. *Tissue Engineering - Part A*, **2020**, 26, 1359-1368	3.9	16
193	The Influence of Printing Parameters and Cell Density on Bioink Printing Outcomes. *Tissue Engineering - Part A*, **2020**, 26, 1349-1358	3.9	15
192	Tuning pore features of mineralized collagen/PCL scaffolds for cranial bone regeneration in a rat model. *Materials Science and Engineering C*, **2020**, 106, 110186	8.3	22
191	Mechanically tunable coaxial electrospun models of YAP/TAZ mechanoresponse and IGF-1R activation in osteosarcoma. *Acta Biomaterialia*, **2019**, 100, 38-51	10.8	14
190	Three-Dimensional Printing of Tissue Engineering Scaffolds with Horizontal Pore and Composition Gradients. *Tissue Engineering - Part C: Methods*, **2019**, 25, 411-420	2.9	18
189	Why, When, Who, What, How, and Where for Trainees Writing Literature Review Articles. *Annals of Biomedical Engineering*, **2019**, 47, 2334-2340	4.7	2
188	Biomaterials-aided mandibular reconstruction using in vivo bioreactors. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 6954-6963	11.5	26
187	A murine model of cutaneous aspergillosis for evaluation of biomaterials-based local delivery therapies. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1867-1874	5.4	2
186	Fabrication and mechanical characterization of 3D printed vertical uniform and gradient scaffolds for bone and osteochondral tissue engineering. *Acta Biomaterialia*, **2019**, 90, 37-48	10.8	101
185	Fabrication and Characterization of Electrospun Decellularized Muscle-Derived Scaffolds. *Tissue Engineering - Part C: Methods*, **2019**, 25, 276-287	2.9	27
184	Multimodal porogen platforms for calcium phosphate cement degradation. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1713-1722	5.4	12
183	An Overview of the Tissue Engineering Market in the United States from 2011 to 2018. *Tissue Engineering - Part A*, **2019**, 25, 1-8	3.9	33
182	Synthetic Polymers **2019**, 559-590		26

181	Applications of decellularized extracellular matrix in bone and cartilage tissue engineering. *Bioengineering and Translational Medicine*, **2019**, 4, 83-95	14.8	106
180	Biomacromolecules for Tissue Engineering: Emerging Biomimetic Strategies. *Biomacromolecules*, **2019**, 20, 2904-2912	6.9	22
179	Hierarchically designed bone scaffolds: From internal cues to external stimuli. *Biomaterials*, **2019**, 218, 119334	15.6	109
178	Insect Bite-Associated Invasive Fungal Infections. *Open Forum Infectious Diseases*, **2019**, 6, ofz385	1	1
177	Synthesis of Injectable, Thermally Responsive, Chondroitin Sulfate-Cross-Linked Poly(-isopropylacrylamide) Hydrogels. *ACS Biomaterials Science and Engineering*, **2019**, 5, 6405-6413	5.5	7
176	Ubiquilins regulate autophagic flux through mTOR signalling and lysosomal acidification. *Nature Cell Biology*, **2019**, 21, 384-396	23.4	76
175	Synergistic effects of dual-presenting VEGF- and BDNF-mimetic peptide epitopes from self-assembling peptide hydrogels on peripheral nerve regeneration. *Nanoscale*, **2019**, 11, 19943-19958	7.7	30
174	Microfluidic devices for disease modeling in muscle tissue. *Biomaterials*, **2019**, 198, 250-258	15.6	11
173	Progress in three-dimensional printing with growth factors. *Journal of Controlled Release*, **2019**, 295, 50-59	11.7	38
172	Multimaterial Segmented Fiber Printing for Gradient Tissue Engineering. *Tissue Engineering - Part C: Methods*, **2019**, 25, 12-24	2.9	21
171	Large Animal Models of an In Vivo Bioreactor for Engineering Vascularized Bone. *Tissue Engineering - Part B: Reviews*, **2018**, 24, 317-325	7.9	12
170	Biomechanical forces in tissue engineered tumor models. *Current Opinion in Biomedical Engineering*, **2018**, 6, 42-50	4.4	12
169	Three-dimensional Printing of Multilayered Tissue Engineering Scaffolds. *Materials Today*, **2018**, 21, 861-874	21.8	93
168	A neurotrophic peptide-functionalized self-assembling peptide nanofiber hydrogel enhances rat sciatic nerve regeneration. *Nano Research*, **2018**, 11, 4599-4613	10	30
167	Effects of Shear Stress Gradients on Ewing Sarcoma Cells Using 3D Printed Scaffolds and Flow Perfusion. *ACS Biomaterials Science and Engineering*, **2018**, 4, 347-356	5.5	21
166	Multimodal pore formation in calcium phosphate cements. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 500-509	5.4	16
165	Incorporation of fast dissolving glucose porogens and poly(lactic-co-glycolic acid) microparticles within calcium phosphate cements for bone tissue regeneration. *Acta Biomaterialia*, **2018**, 78, 341-350	10.8	16
164	Injectable OPF/graphene oxide hydrogels provide mechanical support and enhance cell electrical signaling after implantation into myocardial infarct. *Theranostics*, **2018**, 8, 3317-3330	12.1	54

163	Econazole-releasing porous space maintainers for fungal periprosthetic joint infection. *Journal of Materials Science: Materials in Medicine*, **2018**, 29, 70	4.5	
162	A high-strength mineralized collagen bone scaffold for large-sized cranial bone defect repair in sheep. *International Journal of Energy Production and Management*, **2018**, 5, 283-292	5.3	20
161	Material Processing and Design of Biodegradable Metal Matrix Composites for Biomedical Applications. *Annals of Biomedical Engineering*, **2018**, 46, 1229-1240	4.7	17
160	Drug delivery and tissue engineering to promote wound healing in the immunocompromised host: Current challenges and future directions. *Advanced Drug Delivery Reviews*, **2018**, 129, 319-329	18.5	16
159	Spatiotemporal Control of Growth Factors in Three-Dimensional Printed Scaffolds. *Bioprinting*, **2018**, 12, e00032-e00032	7	37
158	Increased recruitment of endogenous stem cells and chondrogenic differentiation by a composite scaffold containing bone marrow homing peptide for cartilage regeneration. *Theranostics*, **2018**, 8, 5039-5058	12.1	57
157	Improved in situ seeding of 3D printed scaffolds using cell-releasing hydrogels. *Biomaterials*, **2018**, 185, 194-204	15.6	35
156	Reverse transduction can improve efficiency of AAV vectors in transduction-resistant cells. *Biotechnology and Bioengineering*, **2018**, 115, 3042-3049	4.9	3
155	Extrusion-based 3D printing of poly(propylene fumarate) scaffolds with hydroxyapatite gradients. *Journal of Biomaterials Science, Polymer Edition*, **2017**, 28, 532-554	3.5	83
154	Selective laser sintering scaffold with hierarchical architecture and gradient composition for osteochondral repair in rabbits. *Biomaterials*, **2017**, 137, 37-48	15.6	179
153	Synthesis and Characterization of Diol-Based Unsaturated Polyesters: Poly(diol fumarate) and Poly(diol fumarate-co-succinate). *Biomacromolecules*, **2017**, 18, 1724-1735	6.9	14
152	Application of Materials as Medical Devices with Localized Drug Delivery Capabilities for Enhanced Wound Repair. *Progress in Materials Science*, **2017**, 89, 392-410	42.2	62
151	Mineralized Collagen-Based Composite Bone Materials for Cranial Bone Regeneration in Developing Sheep. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1092-1099	5.5	23
150	3D printing for the design and fabrication of polymer-based gradient scaffolds. *Acta Biomaterialia*, **2017**, 56, 3-13	10.8	129
149	Changes in In Vitro Susceptibility Patterns of Aspergillus to Triazoles and Correlation With Aspergillosis Outcome in a Tertiary Care Cancer Center, 1999-2015. *Clinical Infectious Diseases*, **2017**, 65, 216-225	11.6	39
148	Honing Cell and Tissue Culture Conditions for Bone and Cartilage Tissue Engineering. *Cold Spring Harbor Perspectives in Medicine*, **2017**, 7,	5.4	4
147	Effects of Local Antibiotic Delivery from Porous Space Maintainers on Infection Clearance and Induction of an Osteogenic Membrane in an Infected Bone Defect. *Tissue Engineering - Part A*, **2017**, 23, 91-100	3.9	22
146	Inherently Antimicrobial Biodegradable Polymers in Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1207-1220	5.5	16

145	Modeling Stroma-Induced Drug Resistance in a Tissue-Engineered Tumor Model of Ewing Sarcoma. *Tissue Engineering - Part A*, **2017**, 23, 80-89	3.9	17
144	Incorporation of fast dissolving glucose porogens into an injectable calcium phosphate cement for bone tissue engineering. *Acta Biomaterialia*, **2017**, 50, 68-77	10.8	33
143	Acellular mineral deposition within injectable, dual-gelling hydrogels for bone tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 110-117	5.4	7
142	Effects of cellular parameters on the in vitro osteogenic potential of dual-gelling mesenchymal stem cell-laden hydrogels. *Journal of Biomaterials Science, Polymer Edition*, **2016**, 27, 1277-90	3.5	5
141	Evaluation of cell-laden polyelectrolyte hydrogels incorporating poly(L-Lysine) for applications in cartilage tissue engineering. *Biomaterials*, **2016**, 83, 332-46	15.6	64
140	Extrusion-Based 3D Printing of Poly(propylene fumarate) in a Full-Factorial Design. *ACS Biomaterials Science and Engineering*, **2016**, 2, 1771-1780	5.5	67
139	Data describing the swelling behavior and cytocompatibility of biodegradable polyelectrolyte hydrogels incorporating poly(L-lysine) for applications in cartilage tissue engineering. *Data in Brief*, **2016**, 7, 614-9	1.2	4
138	Evaluation of Gelatin Microparticles as Adherent-Substrates for Mesenchymal Stem Cells in a Hydrogel Composite. *Annals of Biomedical Engineering*, **2016**, 44, 1894-907	4.7	13
137	2015 Lifetime Achievement Award of Tissue Engineering and Regenerative Medicine International Society-Americas: Antonios G. Mikos, PhD. *Tissue Engineering - Part A*, **2016**, 22, 1-2	3.9	1
136	A 3D in vitro model of patient-derived prostate cancer xenograft for controlled interrogation of in vivo tumor-stromal interactions. *Biomaterials*, **2016**, 77, 164-72	15.6	74
135	Tissue Engineering in Orthopaedics. *Journal of Bone and Joint Surgery - Series A*, **2016**, 98, 1132-9	5.6	46
134	Polymer-Based Local Antibiotic Delivery for Prevention of Polymicrobial Infection in Contaminated Mandibular Implants. *ACS Biomaterials Science and Engineering*, **2016**, 2, 558-566	5.5	15
133	Poly(lactic acid) nanofibrous scaffolds for tissue engineering. *Advanced Drug Delivery Reviews*, **2016** , 107, 206-212	18.5	238
132	Reconstruction of large mandibular defects using autologous tissues generated from in vivo bioreactors. *Acta Biomaterialia*, **2016**, 45, 72-84	10.8	25
131	A composite critical-size rabbit mandibular defect for evaluation of craniofacial tissue regeneration. *Nature Protocols*, **2016**, 11, 1989-2009	18.8	25
130	Biodegradable, phosphate-containing, dual-gelling macromers for cellular delivery in bone tissue engineering. *Biomaterials*, **2015**, 67, 286-96	15.6	41
129	Infected animal models for tissue engineering. *Methods*, **2015**, 84, 17-24	4.6	11
128	Flow perfusion effects on three-dimensional culture and drug sensitivity of Ewing sarcoma. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 10304-9	11.5	75

127	Biodegradable, in Situ-Forming Cell-Laden Hydrogel Composites of Hydroxyapatite Nanoparticles for Bone Regeneration. *Industrial & Engineering Chemistry Research*, **2015**, 54, 10206-10211	3.9	9
126	Bone Tissue Engineering Challenges in Oral & Maxillofacial Surgery. *Advances in Experimental Medicine and Biology*, **2015**, 881, 57-78	3.6	20
125	Bone Tissue Engineering with Multilayered Scaffolds-Part I: An Approach for Vascularizing Engineered Constructs In Vivo. *Tissue Engineering - Part A*, **2015**, 21, 2480-94	3.9	24
124	Technical Report: Correlation Between the Repair of Cartilage and Subchondral Bone in an Osteochondral Defect Using Bilayered, Biodegradable Hydrogel Composites. *Tissue Engineering - Part C: Methods*, **2015**, 21, 1216-25	2.9	12
123	Immunomodulatory properties of stem cells and bioactive molecules for tissue engineering. *Journal of Controlled Release*, **2015**, 219, 107-118	11.7	34
122	Bone Tissue Engineering with Multilayered Scaffolds-Part II: Combining Vascularization with Bone Formation in Critical-Sized Bone Defect. *Tissue Engineering - Part A*, **2015**, 21, 2495-503	3.9	12
121	Materials from Mussel-Inspired Chemistry for Cell and Tissue Engineering Applications. *Biomacromolecules*, **2015**, 16, 2541-55	6.9	206
120	In vitro and in vivo evaluation of self-mineralization and biocompatibility of injectable, dual-gelling hydrogels for bone tissue engineering. *Journal of Controlled Release*, **2015**, 205, 25-34	11.7	49
119	Novel applications of statins for bone regeneration. *National Science Review*, **2015**, 2, 85-99	10.8	56
118	Strategies for controlled delivery of biologics for cartilage repair. *Advanced Drug Delivery Reviews*, **2015**, 84, 123-34	18.5	82
117	Effects of Electron Beam Sterilization on Mechanical Properties of a Porous Polymethylmethacrylate Space Maintenance Device. *Journal of Medical Devices, Transactions of the ASME*, **2015**, 9,	1.3	3
116	Characterization of an injectable, degradable polymer for mechanical stabilization of mandibular fractures. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2015**, 103, 529-38	3.5	5
115	Gelatin carriers for drug and cell delivery in tissue engineering. *Journal of Controlled Release*, **2014**, 190, 210-8	11.7	221
114	Synthesis, physicochemical characterization, and cytocompatibility of bioresorbable, dual-gelling injectable hydrogels. *Biomacromolecules*, **2014**, 15, 132-42	6.9	46
113	Synthesis and characterization of injectable, biodegradable, phosphate-containing, chemically cross-linkable, thermoresponsive macromers for bone tissue engineering. *Biomacromolecules*, **2014** , 15, 1788-96	6.9	41
112	Direct and indirect co-culture of chondrocytes and mesenchymal stem cells for the generation of polymer/extracellular matrix hybrid constructs. *Acta Biomaterialia*, **2014**, 10, 1824-35	10.8	60
111	Important Topics in the Future of Tissue Engineering: Comments from the participants of the 5th International Conference on Tissue Engineering at Kos, Greece. *International Journal of Energy Production and Management*, **2014**, 1, 103-6	5.3	2
110	Articular chondrocytes and mesenchymal stem cells seeded on biodegradable scaffolds for the repair of cartilage in a rat osteochondral defect model. *Biomaterials*, **2014**, 35, 7460-9	15.6	108

109	Synthetic biodegradable hydrogel delivery of demineralized bone matrix for bone augmentation in a rat model. *Acta Biomaterialia*, **2014**, 10, 4574-4582	10.8	13
108	Dual growth factor delivery from bilayered, biodegradable hydrogel composites for spatially-guided osteochondral tissue repair. *Biomaterials*, **2014**, 35, 8829-8839	15.6	112
107	Generation of osteochondral tissue constructs with chondrogenically and osteogenically predifferentiated mesenchymal stem cells encapsulated in bilayered hydrogels. *Acta Biomaterialia*, **2014**, 10, 1112-23	10.8	47
106	Osteochondral tissue regeneration through polymeric delivery of DNA encoding for the SOX trio and RUNX2. *Acta Biomaterialia*, **2014**, 10, 4103-12	10.8	43
105	Use of porous space maintainers in staged mandibular reconstruction. *Oral and Maxillofacial Surgery Clinics of North America*, **2014**, 26, 143-9	3.4	14
104	Leveraging synthetic biology for tissue engineering applications. *Inflammation and Regeneration*, **2014**, 34, 015-022	10.9	5
103	A factorial analysis of the combined effects of hydrogel fabrication parameters on the in vitro swelling and degradation of oligo(poly(ethylene glycol) fumarate) hydrogels. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 3477-87	5.4	25
102	3D tissue-engineered model of Ewing's sarcoma. *Advanced Drug Delivery Reviews*, **2014**, 79-80, 155-71	18.5	36
101	Evaluation of antibiotic-impregnated microspheres for the prevention of implant-associated orthopaedic infections. *Journal of Bone and Joint Surgery - Series A*, **2014**, 96, 128-34	5.6	21
100	Open-source three-dimensional printing of biodegradable polymer scaffolds for tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 4326-35	5.4	35
99	Perspectives on the prevention and treatment of infection for orthopedic tissue engineering applications. *Science Bulletin*, **2013**, 58, 4342-4348		15
98	Hypoxia and flow perfusion modulate proliferation and gene expression of articular chondrocytes on porous scaffolds. *AICHE Journal*, **2013**, 59, 3158-3166	3.6	17
97	Evolving strategies for preventing biofilm on implantable materials. *Materials Today*, **2013**, 16, 177-182	21.8	71
96	Modeling Ewing sarcoma tumors in vitro with 3D scaffolds. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 6500-5	11.5	180
95	Fiber-Based Composite Tissue Engineering Scaffolds for Drug Delivery. *Israel Journal of Chemistry*, **2013**, 53, n/a-n/a	3.4	4
94	Scaffold/Extracellular matrix hybrid constructs for bone-tissue engineering. *Advanced Healthcare Materials*, **2013**, 2, 13-24	10.1	68
93	Enhanced chondrogenesis in co-cultures with articular chondrocytes and mesenchymal stem cells. *Biomaterials*, **2012**, 33, 6362-9	15.6	150
92	Engineering complex tissues. *Science Translational Medicine*, **2012**, 4, 160rv12	17.5	364

91	Structure-property evaluation of thermally and chemically gelling injectable hydrogels for tissue engineering. *Biomacromolecules*, **2012**, 13, 2821-30	6.9	42
90	Synthesis of oligo(poly(ethylene glycol) fumarate). *Nature Protocols*, **2012**, 7, 1219-27	18.8	68
89	Design of a high-throughput flow perfusion bioreactor system for tissue engineering. *Tissue Engineering - Part C: Methods*, **2012**, 18, 817-20	2.9	23
88	Synthesis and characterization of thermally and chemically gelling injectable hydrogels for tissue engineering. *Biomacromolecules*, **2012**, 13, 1908-15	6.9	62
87	Strategies for controlled delivery of growth factors and cells for bone regeneration. *Advanced Drug Delivery Reviews*, **2012**, 64, 1292-309	18.5	470
86	Development of a biodegradable bone cement for craniofacial applications. *Journal of Biomedical Materials Research - Part A*, **2012**, 100, 2252-9	5.4	18
85	Building bridges: leveraging interdisciplinary collaborations in the development of biomaterials to meet clinical needs. *Advanced Materials*, **2012**, 24, 4995-5013	24	62
84	Antibiotic-releasing porous polymethylmethacrylate/gelatin/antibiotic constructs for craniofacial tissue engineering. *Journal of Controlled Release*, **2011**, 152, 196-205	11.7	64
83	The influence of stereolithographic scaffold architecture and composition on osteogenic signal expression with rat bone marrow stromal cells. *Biomaterials*, **2011**, 32, 3750-63	15.6	120
82	Protein and mineral composition of osteogenic extracellular matrix constructs generated with a flow perfusion bioreactor. *Biomacromolecules*, **2011**, 12, 4204-12	6.9	36
81	Injectable calcium phosphate cement with PLGA, gelatin and PTMC microspheres in a rabbit femoral defect. *Acta Biomaterialia*, **2011**, 7, 1752-9	10.8	76
80	Tissue Engineering: A Historical Perspective **2010**, 1-15		
79	Responsive and in situ-forming chitosan scaffolds for bone tissue engineering applications: an overview of the last decade. *Journal of Materials Chemistry*, **2010**, 20, 1638-1645		70
78	Engineering tumors: a tissue engineering perspective in cancer biology. *Tissue Engineering - Part B: Reviews*, **2010**, 16, 351-9	7.9	138
77	Osteogenic differentiation of mesenchymal stem cells on pregenerated extracellular matrix scaffolds in the absence of osteogenic cell culture supplements. *Tissue Engineering - Part A*, **2010**, 16, 431-40	3.9	158
76	Fibrin glue as a drug delivery system. *Journal of Controlled Release*, **2010**, 148, 49-55	11.7	130
75	Dose effect of dual delivery of vascular endothelial growth factor and bone morphogenetic protein-2 on bone regeneration in a rat critical-size defect model. *Tissue Engineering - Part A*, **2009**, 15, 2347-62	3.9	209
74	Injectable biomaterials for regenerating complex craniofacial tissues. *Advanced Materials*, **2009**, 21, 3368-93	24	233

73	Synthesis of poly(propylene fumarate). *Nature Protocols*, **2009**, 4, 518-25	18.8	156
72	Synthesis and characterization of injectable, thermally and chemically gelable, amphiphilic poly(N-isopropylacrylamide)-based macromers. *Biomacromolecules*, **2008**, 9, 1558-70	6.9	87
71	In vivo biocompatibility of ultra-short single-walled carbon nanotube/biodegradable polymer nanocomposites for bone tissue engineering. *Bone*, **2008**, 43, 362-370	4.7	218
70	Thermoresponsive hydrogels in biomedical applications. *European Journal of Pharmaceutics and Biopharmaceutics*, **2008**, 68, 34-45	5.7	931
69	In vitro cytotoxicity of single-walled carbon nanotube/biodegradable polymer nanocomposites. *Journal of Biomedical Materials Research - Part A*, **2008**, 86, 813-23	5.4	71
68	Evaluation of the biocompatibility of calcium phosphate cement/PLGA microparticle composites. *Journal of Biomedical Materials Research - Part A*, **2008**, 87, 760-9	5.4	68
67	Functionalization of oligo(poly(ethylene glycol)fumarate) hydrogels with finely dispersed calcium phosphate nanocrystals for bone-substituting purposes. *Journal of Biomaterials Science, Polymer Edition*, **2007**, 18, 1547-1564	3.5	46
66	Engineering complex tissues. *Tissue Engineering*, **2006**, 12, 3307-39		459
65	Influence of the porosity of starch-based fiber mesh scaffolds on the proliferation and osteogenic differentiation of bone marrow stromal cells cultured in a flow perfusion bioreactor. *Tissue Engineering*, **2006**, 12, 801-9		176
64	Electrospun poly(epsilon-caprolactone) microfiber and multilayer nanofiber/microfiber scaffolds: characterization of scaffolds and measurement of cellular infiltration. *Biomacromolecules*, **2006**, 7, 2796-805	6.9	763
63	Gelatin as a delivery vehicle for the controlled release of bioactive molecules. *Journal of Controlled Release*, **2005**, 109, 256-74	11.7	820
62	In vivo degradation of porous poly(propylene fumarate)/poly(DL-lactic-co-glycolic acid) composite scaffolds. *Biomaterials*, **2005**, 26, 4616-23	15.6	99
61	Thermoreversible hydrogel scaffolds for articular cartilage engineering. *Journal of Biomedical Materials Research Part B*, **2004**, 71, 268-74		103
60	Surface-modified poly(lactide-co-glycolide) nanospheres for targeted bone imaging with enhanced labeling and delivery of radioisotope. *Journal of Biomedical Materials Research - Part A*, **2003**, 67, 751-60	5.4	12
59	In vivo bone and soft tissue response to injectable, biodegradable oligo(poly(ethylene glycol) fumarate) hydrogels. *Biomaterials*, **2003**, 24, 3201-11	15.6	171
58	Biomimetic materials for tissue engineering. *Biomaterials*, **2003**, 24, 4353-64	15.6	1253
57	In vitro cytotoxicity of injectable and biodegradable poly(propylene fumarate)-based networks: unreacted macromers, cross-linked networks, and degradation products. *Biomacromolecules*, **2003**, 4, 1026-33	6.9	98
56	Use of stereolithography to manufacture critical-sized 3D biodegradable scaffolds for bone ingrowth **2003**, 64B, 65		1

55	Modulation of marrow stromal osteoblast adhesion on biomimetic oligo[poly(ethylene glycol) fumarate] hydrogels modified with Arg-Gly-Asp peptides and a poly(ethyleneglycol) spacer. *Journal of Biomedical Materials Research Part B*, **2002**, 61, 169-79		143
54	Soft and hard tissue response to photocrosslinked poly(propylene fumarate) scaffolds in a rabbit model. *Journal of Biomedical Materials Research Part B*, **2002**, 59, 547-56		206
53	Photocrosslinking characteristics and mechanical properties of diethyl fumarate/poly(propylene fumarate) biomaterials. *Biomaterials*, **2002**, 23, 4333-43	15.6	172
52	Characterization of the Cross-Linked Structure of Fumarate-Based Degradable Polymer Networks. *Macromolecules*, **2002**, 35, 4373-4379	5.5	45
51	Effect of poly(ethylene glycol) molecular weight on tensile and swelling properties of oligo(poly(ethylene glycol) fumarate) hydrogels for cartilage tissue engineering **2002**, 59, 429		16
50	An optimized method for the chemiluminescent detection of alkaline phosphatase levels during osteodifferentiation by bone morphogenetic protein 2. *Journal of Cellular Biochemistry*, **2001**, 80, 532-7	4.7	53
49	Integrin alpha(v)beta(3) is involved in stimulated migration of vascular adventitial fibroblasts by basic fibroblast growth factor but not platelet-derived growth factor. *Journal of Cellular Biochemistry*, **2001**, 83, 129-35	4.7	17
48	Photoinitiated Polymerization of Biomaterials. *Annual Review of Materials Research*, **2001**, 31, 171-181	12.8	133
47	Synthesis and properties of photocross-linked poly(propylene fumarate) scaffolds. *Journal of Biomaterials Science, Polymer Edition*, **2001**, 12, 673-87	3.5	150
46	Modification of oligo(poly(ethylene glycol) fumarate) macromer with a GRGD peptide for the preparation of functionalized polymer networks. *Biomacromolecules*, **2001**, 2, 255-61	6.9	74
45	Synthesis and Characterization of Oligo(poly(ethylene glycol) fumarate) Macromer. *Macromolecules* , **2001**, 34, 2839-2844	5.5	141
44	Direct-Write Construction of Tissue-Engineered Scaffolds. *Materials Research Society Symposia Proceedings*, **2001**, 698, 551		3
43	An optimized method for the chemiluminescent detection of alkaline phosphatase levels during osteodifferentiation by bone morphogenetic protein 2 **2001**, 80, 532		2
42	Effects of Block Lengths and Initial Water Content on the Swelling and Degradative Characteristics of an Injectable Poly(propylene Fumarate-Co-Ethylene Glycol) Block Copolymer Hydrogel. *Materials Research Society Symposia Proceedings*, **2000**, 662, 1		
41	Poly(ethylenimine)-mediated transfection: a new paradigm for gene delivery. *Journal of Biomedical Materials Research Part B*, **2000**, 51, 321-8		256
40	Growth factor delivery for tissue engineering. *Pharmaceutical Research*, **2000**, 17, 497-504	4.5	362
39	Controlled Release of Bone Growth Factors from Injectable, Biodegradable Polymer Scaffolds for Bone Tissue Engineering. *Materials Research Society Symposia Proceedings*, **2000**, 662, 1		0
38	Poly(ethylenimine)-mediated transfection: A new paradigm for gene delivery **2000**, 51, 321		5

37	Crosslinking characteristics of an injectable poly(propylene fumarate)/beta-tricalcium phosphate paste and mechanical properties of the crosslinked composite for use as a biodegradable bone cement. *Journal of Biomedical Materials Research Part B*, **1999**, 44, 314-21		172
36	Size matters: molecular weight affects the efficiency of poly(ethylenimine) as a gene delivery vehicle. *Journal of Biomedical Materials Research Part B*, **1999**, 45, 268-75		672
35	In vitro cytotoxicity and in vivo biocompatibility of poly(propylene fumarate-co-ethylene glycol) hydrogels. *Journal of Biomedical Materials Research Part B*, **1999**, 46, 22-32		100
34	Modulation of marrow stromal cell function using poly(D,L-lactic acid)-block-poly(ethylene glycol)-monomethyl ether surfaces. *Journal of Biomedical Materials Research Part B*, **1999**, 46, 390-8		50
33	Synthesis of poly(propylene fumarate) by acylation of propylene glycol in the presence of a proton scavenger. *Journal of Biomaterials Science, Polymer Edition*, **1999**, 10, 363-73	3.5	67
32	Crosslinking characteristics of an injectable poly(propylene fumarate)/tricalcium phosphate paste and mechanical properties of the crosslinked composite for use as a biodegradable bone cement **1999**, 44, 314		2
31	In vitro cytotoxicity and in vivo biocompatibility of poly(propylene fumarate-co-ethylene glycol) hydrogels **1999**, 46, 22		1
30	Modulation of marrow stromal cell function using poly(D,L-lactic acid)-block-poly(ethylene glycol)-monomethyl ether surfaces **1999**, 46, 390		1
29	Modulation of marrow stromal cell function using poly(D,L-lactic acid)-block-poly(ethylene glycol)-monomethyl ether surfaces **1999**, 46, 390		5
28	In vivo degradation of a poly(propylene fumarate)/beta-tricalcium phosphate injectable composite scaffold. *Journal of Biomedical Materials Research Part B*, **1998**, 41, 1-7		181
27	In vitro and in vivo degradation of poly(propylene fumarate-co-ethylene glycol) hydrogels. *Journal of Biomedical Materials Research Part B*, **1998**, 42, 312-20		77
26	Osteoblastic phenotype of rat marrow stromal cells cultured in the presence of dexamethasone, beta-glycerolphosphate, and L-ascorbic acid. *Journal of Cellular Biochemistry*, **1998**, 71, 55-62	4.7	117
25	Retinal pigment epithelium cell culture on thin biodegradable poly(DL-lactic-co-glycolic acid) films. *Journal of Biomaterials Science, Polymer Edition*, **1998**, 9, 1187-205	3.5	48
24	Preparation and characterization of poly(propylene fumarate-co-ethylene glycol) hydrogels. *Journal of Biomaterials Science, Polymer Edition*, **1998**, 9, 653-66	3.5	66
23	In vivo degradation of a poly(propylene fumarate)/tricalcium phosphate injectable composite scaffold **1998**, 41, 1		3
22	Synthesis and Characterization of a Block Copolymer Consisting of Poly(propylene fumarate) and Poly(ethylene glycol). *Macromolecules*, **1997**, 30, 4318-4323	5.5	52
21	Characterization of partially saturated poly(propylene fumarate) for orthopaedic application. *Journal of Biomaterials Science, Polymer Edition*, **1997**, 8, 893-904	3.5	71
20	In Vitro Degradation of a Poly(Propylene Fumarate)/ Tricalcium Phosphate Composite Orthopaedic Scaffold. *Tissue Engineering*, **1997**, 3, 207-215		85

19	Retinal pigment epithelium cells cultured on synthetic biodegradable polymers. *Journal of Biomedical Materials Research Part B*, **1997**, 34, 87-93		74
18	Inhibition of smooth muscle cell growth in vitro by an antisense oligodeoxynucleotide released from poly(DL-lactic-co-glycolic acid) microparticles. *Journal of Biomedical Materials Research Part B*, **1997**, 35, 525-30		71
17	Ectopic bone formation by marrow stromal osteoblast transplantation using poly(DL-lactic-co-glycolic acid) foams implanted into the rat mesentery. *Journal of Biomedical Materials Research Part B*, **1997**, 36, 1-8		215
16	Bone formation by three-dimensional stromal osteoblast culture in biodegradable polymer scaffolds. *Journal of Biomedical Materials Research Part B*, **1997**, 36, 17-28		584
15	Bone formation by three-dimensional stromal osteoblast culture in biodegradable polymer scaffolds **1997**, 36, 17		2
14	Bone formation by three-dimensional stromal osteoblast culture in biodegradable polymer scaffolds **1997**, 36, 17		77
13	Review: Hydrogels for cell immobilization. *Biotechnology and Bioengineering*, **1996**, 50, 357-64	4.9	228
12	Osteoblast migration on poly(alpha-hydroxy esters). *Biotechnology and Bioengineering*, **1996**, 50, 443-51	4.9	38
11	The growth and phenotypic expression of human osteoblasts. *Cytotechnology*, **1996**, 22, 263-7	2.2	1
10	Review: Hydrogels for cell immobilization **1996**, 50, 357		188
9	Bone tissue engineering. *Nature Medicine*, **1995**, 1, 1322-4	50.5	204
8	Fabrication of biodegradable polymer scaffolds to engineer trabecular bone. *Journal of Biomaterials Science, Polymer Edition*, **1995**, 7, 23-38	3.5	377
7	The Synthesis and Characterization of a Novel Block Copolymer Consisting of Poly(Propylene Fumarate) and Poly(Ethylene Oxide). *Materials Research Society Symposia Proceedings*, **1995**, 394, 167		
6	Poly(Hydroxy Ester)/Short Fiber Hydroxyapatite Composite Foams for Orthopedic Application. *Materials Research Society Symposia Proceedings*, **1995**, 394, 25		4
5	Osteoblast function on synthetic biodegradable polymers. *Journal of Biomedical Materials Research Part B*, **1994**, 28, 1445-53		206
4	Mini-review: Islet transplantation to create a bioartificial pancreas. *Biotechnology and Bioengineering*, **1994**, 43, 673-7	4.9	57
3	Osteoblast Adhesion on Biodegradable Polymer Substrates. *Materials Research Society Symposia Proceedings*, **1993**, 331, 121		
2	Biodegradable Polymer Composites for Temporary Replacement of Trabecular Bone: The Effect of Polymer Molecular Weight on Composite Strength and Modulus. *Materials Research Society Symposia Proceedings*, **1993**, 331, 251		2

1 A Novel Biodegradable Poly(Lactic-Co-Glycolic Acid) Foam for Bone Regeneration. *Materials Research Society Symposia Proceedings*, **1993**, 331, 33