Brian Aguado

List of Publications by Year in descending order

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226	15,571	15466 65	21474 114
papers	citations	h-index	g-index

232	232	232	16276
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanical memory and dosing influence stem cell fate. Nature Materials, 2014, 13, 645-652.	13.3	943
2	Cytocompatible click-based hydrogels with dynamically tunable properties through orthogonal photoconjugation and photocleavage reactions. Nature Chemistry, 2011, 3, 925-931.	6.6	610
3	A Versatile Synthetic Extracellular Matrix Mimic via Thiolâ€Norbornene Photopolymerization. Advanced Materials, 2009, 21, 5005-5010.	11.1	578
4	The design of reversible hydrogels to capture extracellular matrix dynamics. Nature Reviews Materials, 2016, 1, .	23.3	554
5	In situ elasticity modulation with dynamic substrates to direct cell phenotype. Biomaterials, 2010, 31, 1-8.	5.7	386
6	Spatial and temporal control of the alkyneâ€“azide cycloaddition by photoinitiated Cu(II) reduction. Nature Chemistry, 2011, 3, 256-259.	6.6	342
7	Biophysically Defined and Cytocompatible Covalently Adaptable Networks as Viscoelastic 3D Cell Culture Systems. Advanced Materials, 2014, 26, 865-872.	11.1	337
8	Advances in islet encapsulation technologies. Nature Reviews Drug Discovery, 2017, 16, 338-350.	21.5	315
9	Attachment of fibronectin to poly(vinyl alcohol) hydrogels promotes NIH3T3 cell adhesion, proliferation, and migration. Journal of Biomedical Materials Research Part B, 2001, 57, 217-223.	3.0	285
10	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. Angewandte Chemie - International Edition, 2017, 56, 12132-12136.	7.2	220
11	Engineered Bone Development from a Pre-Osteoblast Cell Line on Three-Dimensional Scaffolds. Tissue Engineering, 2000, 6, 605-617.	4.9	214
12	Progress in material design for biomedical applications. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14444-14451.	3.3	201
13	In vitro follicle growth supports human oocyte meiotic maturation. Scientific Reports, 2015, 5, 17323.	1.6	190
14	Harnessing nanoparticles for immune modulation. Trends in Immunology, 2015, 36, 419-427.	2.9	190
15	Dynamic stiffening of poly(ethylene glycol)-based hydrogels to direct valvular interstitial cell phenotype in a three-dimensional environment. Biomaterials, 2015, 49, 47-56.	5.7	187
16	Tissue geometry drives deterministic organoid patterning. Science, 2022, 375, eaaw9021.	6.0	186
17	Predicting Controlled-Release Behavior of Degradable PLA-b-PEG-b-PLA Hydrogels. Macromolecules, 2001, 34, 4630-4635.	2.2	185
18	Spatially patterned matrix elasticity directs stem cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4439-45.	3.3	184

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19	Synthesis and Characterization of Photopolymerized Multifunctional Hydrogels:Â Water-Soluble Poly(Vinyl Alcohol) and Chondroitin Sulfate Macromers for Chondrocyte Encapsulation. Macromolecules, 2004, 37, 6726-6733.	2.2	173
20	Mixed Mode Thiolâ^'Acrylate Photopolymerizations for the Synthesis of PEGâ^'Peptide Hydrogels. Macromolecules, 2008, 41, 6019-6026.	2.2	163
21	Reaction Rates and Mechanisms for Radical, Photoinitated Addition of Thiols to Alkynes, and Implications for Thiolâ^'Yne Photopolymerizations and Click Reactions. Macromolecules, 2010, 43, 4113-4119.	2.2	156
22	Measuring dynamic cellâ€“material interactions and remodeling during 3D human mesenchymal stem cell migration in hydrogels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3757-64.	3.3	149
23	Mechanical Properties and Degradation of Chain and Step-Polymerized Photodegradable Hydrogels. Macromolecules, 2013, 46, 2785-2792.	2.2	147
24	Redirecting Valvular Myofibroblasts into Dormant Fibroblasts through Light-mediated Reduction in Substrate Modulus. PLoS ONE, 2012, 7, e39969.	1.1	146
25	Engineering precision biomaterials for personalized medicine. Science Translational Medicine, 2018, 10, .	5.8	145
26	Photopolymerized dynamic hydrogels with tunable viscoelastic properties through thioester exchange. Biomaterials, 2018, 178, 496-503.	5.7	142
27	Hydrogels preserve native phenotypes of valvular fibroblasts through an elasticity-regulated PI3K/AKT pathway. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19336-19341.	3.3	140
28	In vivo capture and label-free detection of early metastatic cells. Nature Communications, 2015, 6, 8094.	5.8	133
29	Reversible Control of Network Properties in Azobenzene-Containing Hyaluronic Acid-Based Hydrogels. Bioconjugate Chemistry, 2018, 29, 905-913.	1.8	132
30	Vasculogenic hydrogel enhances islet survival, engraftment, and function in leading extrahepatic sites. Science Advances, 2017, 3, e1700184.	4.7	130
31	A Reversible and Repeatable Thiolâ€“Ene Bioconjugation for Dynamic Patterning of Signaling Proteins in Hydrogels. ACS Central Science, 2018, 4, 909-916.	5.3	122
32	Materials for Non-Viral Gene Delivery. Annual Review of Materials Research, 2001, 31, 25-46.	4.3	115
33	Photoclick Chemistry: A Bright Idea. Chemical Reviews, 2021, 121, 6915-6990.	23.0	113
34	A Statistical Kinetic Model for the Bulk Degradation of PLA-b-PEG-b-PLA Hydrogel Networks:Â Incorporating Network Non-Idealities. Journal of Physical Chemistry B, 2001, 105, 8069-8076.	1.2	107
35	Coumarin-Based Photodegradable Hydrogel: Design, Synthesis, Gelation, and Degradation Kinetics. ACS Macro Letters, 2014, 3, 515-519.	2.3	104
36	Microarray analyses to quantify advantages of 2D and 3D hydrogel culture systems in maintaining the native valvular interstitial cell phenotype. Biomaterials, 2016, 74, 31-41.	5.7	104

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37	Thiol-ene and photo-cleavage chemistry for controlled presentation of biomolecules in hydrogels. Journal of Controlled Release, 2015, 219, 95-106.	4.8	103
38	Transforming growth factor-beta 1 delivery from microporous scaffolds decreases inflammation post-implant and enhances function of transplanted islets. Biomaterials, 2016, 80, 11-19.	5.7	103
39	Engineering the pre-metastatic niche. Nature Biomedical Engineering, 2017, 1, .	11.6	100
40	Engineering the ovarian cycle using in vitro follicle culture. Human Reproduction, 2015, 30, 1386-1395.	0.4	99
41	In vivo reprogramming of immune cells: Technologies for induction of antigen-specific tolerance. Advanced Drug Delivery Reviews, 2017, 114, 240-255.	6.6	95
42	Clickable Microgel Scaffolds as Platforms for 3D Cell Encapsulation. Advanced Healthcare Materials, 2017, 6, 1700254.	3.9	93
43	Design and Characterization of a Synthetically Accessible, Photodegradable Hydrogel for User-Directed Formation of Neural Networks. Biomacromolecules, 2014, 15, 2808-2816.	2.6	90
44	An antigen-encapsulating nanoparticle platform for TH1/17 immune tolerance therapy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 191-200.	1.7	89
45	Amplified Photodegradation of Cellâ€Laden Hydrogels via an Additionâ€“Fragmentation Chain Transfer Reaction. Advanced Materials, 2017, 29, 1605001.	11.1	88
46	Tolerogenic Ag-PLG nanoparticles induce tregs to suppress activated diabetogenic CD4 and CD8 T cells. Journal of Autoimmunity, 2018, 89, 112-124.	3.0	87
47	Gliadin Nanoparticles Induce Immune Tolerance to Gliadin in Mouse Models of Celiac Disease. Gastroenterology, 2020, 158, 1667-1681.e12.	0.6	87
48	Enhanced Survival with Implantable Scaffolds That Capture Metastatic Breast Cancer Cells In Vivo. Cancer Research, 2016, 76, 5209-5218.	0.4	86
49	Hydrazone covalent adaptable networks modulate extracellular matrix deposition for cartilage tissue engineering. Acta Biomaterialia, 2019, 83, 71-82.	4.1	86
50	Small peptide functionalized thiolâ€“ene hydrogels as culture substrates for understanding valvular interstitial cell activation and de novo tissue deposition. Acta Biomaterialia, 2012, 8, 3201-3209.	4.1	83
51	Plakophilin-2 loss promotes TGF-Î²1/p38 MAPK-dependent fibrotic gene expression in cardiomyocytes. Journal of Cell Biology, 2016, 212, 425-438.	2.3	83
52	Intravascular innate immune cells reprogrammed via intravenous nanoparticles to promote functional recovery after spinal cord injury. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14947-14954.	3.3	83
53	Aligned hydrogel tubes guide regeneration following spinal cord injury. Acta Biomaterialia, 2019, 86, 312-322.	4.1	83
54	Cardiac valve cells and their microenvironmentâ€”insights from in vitro studies. Nature Reviews Cardiology, 2014, 11, 715-727.	6.1	80

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55	Peptide-Conjugated Nanoparticles Reduce Positive Co-stimulatory Expression and T Cell Activity to Induce Tolerance. Molecular Therapy, 2017, 25, 1676-1685.	3.7	79
56	Controlled Delivery of Single or Multiple Antigens in Tolerogenic Nanoparticles Using Peptide-Polymer Bioconjugates. Molecular Therapy, 2017, 25, 1655-1664.	3.7	79
57	Ultrathin gradient films using thiol-ene polymerizations. Journal of Polymer Science Part A, 2006, 44, 7027-7039.	2.5	78
58	Biodegradable antigen-associated PLG nanoparticles tolerize Th2-mediated allergic airway inflammation pre- and postsensitization. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5059-5064.	3.3	78
59	Nanoparticle delivery of donor antigens for transplant tolerance in allogeneic islet transplantation. Biomaterials, 2014, 35, 8887-8894.	5.7	77
60	PEGâ€“Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie - International Edition, 2019, 58, 9912-9916.	7.2	77
61	Myofibroblastic activation of valvular interstitial cells is modulated by spatial variations in matrix elasticity and its organization. Biomaterials, 2017, 131, 131-144.	5.7	75
62	A Generalized Bulk-Degradation Model for Hydrogel Networks Formed from Multivinyl Cross-linking Molecules. Journal of Physical Chemistry B, 2001, 105, 5131-5138.	1.2	74
63	A peptide functionalized poly(ethylene glycol) (PEG) hydrogel for investigating the influence of biochemical and biophysical matrix properties on tumor cell migration. Biomaterials Science, 2014, 2, 1024.	2.6	74
64	A Dielsâ€“Alder modulated approach to control and sustain the release of dexamethasone and induce osteogenic differentiation of human mesenchymal stem cells. Biomaterials, 2013, 34, 4150-4158.	5.7	72
65	Nuclear mechanosensing drives chromatin remodelling in persistently activated fibroblasts. Nature Biomedical Engineering, 2021, 5, 1485-1499.	11.6	71
66	Monitoring degradation of matrix metalloproteinases-cleavable PEG hydrogels via multiple particle tracking microrheology. Soft Matter, 2013, 9, 1570-1579.	1.2	69
67	Itâ€™s All in the Delivery: Designing Hydrogels for Cell and Non-viral Gene Therapies. Molecular Therapy, 2018, 26, 2087-2106.	3.7	68
68	Designing drug-free biodegradable nanoparticles to modulate inflammatory monocytes and neutrophils for ameliorating inflammation. Journal of Controlled Release, 2019, 300, 185-196.	4.8	68
69	Overcoming challenges in treating autoimmuntity: Development of tolerogenic immune-modifying nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 18, 282-291.	1.7	67
70	Synthesis and characterization of tetrafunctional lactic acid oligomers: A potentialin situ forming degradable orthopaedic biomaterial. Journal of Polymer Science Part A, 2001, 39, 683-692.	2.5	66
71	Modulation of leukocyte infiltration and phenotype in microporous tissue engineering scaffolds via vector induced IL-10 expression. Biomaterials, 2014, 35, 2024-2031.	5.7	66
72	Immune Tolerance for Autoimmune Disease and Cell Transplantation. Annual Review of Biomedical Engineering, 2016, 18, 181-205.	5.7	66

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73	Conjugation of Transforming Growth Factor Beta to Antigen-Loaded Poly(lactide-co-glycolide) Nanoparticles Enhances Efficiency of Antigen-Specific Tolerance. Bioconjugate Chemistry, 2018, 29, 813-823.	1.8	66
74	Living radical photopolymerization induced grafting on thiol-ene based substrates. Journal of Polymer Science Part A, 2005, 43, 2134-2144.	2.5	65
75	Extracellular matrix mediators of metastatic cell colonization characterized using scaffold mimics of the pre-metastatic niche. Acta Biomaterialia, 2016, 33, 13-24.	4.1	65
76	Engineering the MSC Secretome: A Hydrogel Focused Approach. Advanced Healthcare Materials, 2021, 10, e2001948.	3.9	65
77	Secondary Photocrosslinking of Click Hydrogels To Probe Myoblast Mechanotransduction in Three Dimensions. Journal of the American Chemical Society, 2018, 140, 11585-11588.	6.6	64
78	Neutrophils preferentially phagocytose elongated particlesâ€"An opportunity for selective targeting in acute inflammatory diseases. Science Advances, 2020, 6, eaba1474.	4.7	64
79	A Methacrylated Photoiniferter as a Chemical Basis for Microlithography:Â Micropatterning Based on Photografting Polymerization. Macromolecules, 2003, 36, 6739-6745.	2.2	63
80	Sonic hedgehog and neurotrophin-3 increase oligodendrocyte numbers and myelination after spinal cord injury. Integrative Biology (United Kingdom), 2014, 6, 694-705.	0.6	63
81	Injury-mediated stiffening persistently activates muscle stem cells through YAP and TAZ mechanotransduction. Science Advances, 2021, 7, .	4.7	63
82	Size-specific follicle selection improves mouse oocyte reproductive outcomes. Reproduction, 2015, 150, 183-192.	1.1	61
83	Biomaterial bridges enable regeneration and re-entry of corticospinal tract axons into the caudal spinal cord after SCI: Association with recovery of forelimb function. Biomaterials, 2015, 65, 1-12.	5.7	61
84	Synthesis of a novel methacrylic monomer iniferter and its application in surface photografting on crosslinked polymer substrates. Journal of Polymer Science Part A, 2002, 40, 1885-1891.	2.5	59
85	Adaptable boronate ester hydrogels with tunable viscoelastic spectra to probe timescale dependent mechanotransduction. Biomaterials, 2019, 223, 119430.	5.7	59
86	Designing Microgels for Cell Culture and Controlled Assembly of Tissue Microenvironments. Advanced Functional Materials, 2020, 30, 1907670.	7.8	58
87	The Effect of Thiol Structure on Allyl Sulfide Photodegradable Hydrogels and their Application as a Degradable Scaffold for Organoid Passaging. Advanced Materials, 2020, 32, e1905366.	11.1	58
88	Relaxation of Extracellular Matrix Forces Directs Crypt Formation and Architecture in Intestinal Organoids. Advanced Healthcare Materials, 2020, 9, e1901214.	3.9	58
89	3D Photofixation Lithography in Dielsâ€"Alder Networks. Macromolecular Rapid Communications, 2012, 33, 2092-2096.	2.0	57
90	Modulation of matrix elasticity with PEG hydrogels to study melanoma drug responsiveness. Biomaterials, 2014, 35, 4310-4318.	5.7	57

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91	Poly(lactide-co-glycolide) microspheres for MRI-monitored transcatheter delivery of sorafenib to liver tumors. Journal of Controlled Release, 2014, 184, 10-17.	4.8	56
92	Local Immunomodulation with Anti-inflammatory Cytokine-Encoding Lentivirus Enhances Functional Recovery after Spinal Cord Injury. Molecular Therapy, 2018, 26, 1756-1770.	3.7	56
93	Multifunctional Pancreatic Islet Encapsulation Barriers Achieved via Multilayer PEG Hydrogels. Cell Transplantation, 2007, 16, 1049-1057.	1.2	53
94	Osteogenic differentiation of human mesenchymal stem cells on Î±5 integrin binding peptide hydrogels is dependent on substrate elasticity. Biomaterials Science, 2014, 2, 352-361.	2.6	52
95	Multifunctional bioscaffolds for 3D culture of melanoma cells reveal increased MMP activity and migration with BRAF kinase inhibition. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5366-5371.	3.3	52
96	Injectable Carbon Nanotube-Functionalized Reverse Thermal Gel Promotes Cardiomyocytes Survival and Maturation. ACS Applied Materials & Interfaces, 2017, 9, 31645-31656.	4.0	52
97	Cargo-less nanoparticles program innate immune cell responses to toll-like receptor activation. Biomaterials, 2019, 218, 119333.	5.7	51
98	Multi-modal magnetic resonance elastography for noninvasive assessment of ovarian tissue rigidity in vivo. Acta Biomaterialia, 2015, 13, 295-300.	4.1	49
99	Photoregulated Hydrazone-Based Hydrogel Formation for Biochemically Patterning 3D Cellular Microenvironments. ACS Macro Letters, 2016, 5, 19-23.	2.3	49
100	Reducing inflammation through delivery of lentivirus encoding for anti-inflammatory cytokines attenuates neuropathic pain after spinal cord injury. Journal of Controlled Release, 2018, 290, 88-101.	4.8	49
101	Gold Nanoparticle-Functionalized Reverse Thermal Gel for Tissue Engineering Applications. ACS Applied Materials & Interfaces, 2019, 11, 18671-18680.	4.0	47
102	Three-dimensional systems for in vitro follicular culture: overview of alginate-based matrices. Reproduction, Fertility and Development, 2014, 26, 915.	0.1	46
103	Tolerance induction using nanoparticles bearing HY peptides in bone marrow transplantation. Biomaterials, 2016, 76, 1-10.	5.7	46
104	Design of biodegradable nanoparticles to modulate phenotypes of antigen-presenting cells for antigen-specific treatment of autoimmune disease. Biomaterials, 2019, 222, 119432.	5.7	46
105	Retrievable hydrogels for ovarian follicle transplantation and oocyte collection. Biotechnology and Bioengineering, 2018, 115, 2075-2086.	1.7	45
106	Poly(lactide-co-glycolide) microspheres for MRI-monitored delivery of sorafenib in a rabbit VX2 model. Biomaterials, 2015, 61, 299-306.	5.7	44
107	Role of cell-matrix interactions on VIC phenotype and tissue deposition in 3D PEG hydrogels. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, E443-E453.	1.3	43
108	Porous bio-click microgel scaffolds control hMSC interactions and promote their secretory properties. Biomaterials, 2020, 232, 119725.	5.7	43

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109	Three-Dimensional High-Throughput Cell Encapsulation Platform to Study Changes in Cell-Matrix Interactions. ACS Applied Materials & Interfaces, 2016, 8, 21914-21922.	4.0	42
110	Heparinâ€“chitosan nanoparticle functionalization of porous poly(ethylene glycol) hydrogels for localized lentivirus delivery of angiogenic factors. Biomaterials, 2014, 35, 8687-8693.	5.7	41
111	Enhanced user-control of small molecule drug release from a poly(ethylene glycol) hydrogel via azobenzene/cyclodextrin complex tethers. Journal of Materials Chemistry B, 2016, 4, 1035-1039.	2.9	41
112	Transcatheter aortic valve replacements alter circulating serum factors to mediate myofibroblast deactivation. Science Translational Medicine, 2019, 11, .	5.8	41
113	Secreted Factors From Proinflammatory Macrophages Promote an Osteoblast-Like Phenotype in Valvular Interstitial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, e296-e308.	1.1	41
114	Matters of the heart: Cellular sex differences. Journal of Molecular and Cellular Cardiology, 2021, 160, 42-55.	0.9	40
115	A synthetic modular approach for modeling the role of the 3D microenvironment in tumor progression. Scientific Reports, 2015, 5, 17814.	1.6	39
116	Modulating lung immune cells by pulmonary delivery of antigen-specific nanoparticles to treat autoimmune disease. Science Advances, 2020, 6, .	4.7	38
117	Modeling controlled photodegradation in optically thick hydrogels. Journal of Polymer Science Part A, 2013, 51, 1899-1911.	2.5	37
118	Tissue Engineering Approaches to Modulate the Inflammatory Milieu following Spinal Cord Injury. Cells Tissues Organs, 2016, 202, 52-66.	1.3	37
119	Biomaterial Scaffolds for Controlled, Localized Gene Delivery of Regenerative Factors. Advances in Wound Care, 2013, 2, 100-106.	2.6	36
120	Synthesis of Microgel Sensors for Spatial and Temporal Monitoring of Protease Activity. ACS Biomaterials Science and Engineering, 2018, 4, 378-387.	2.6	36
121	Epithelial-mesenchymal crosstalk influences cellular behavior in a 3D alveolus-fibroblast model system. Biomaterials, 2018, 155, 124-134.	5.7	36
122	Controlled release strategies for modulating immune responses to promote tissue regeneration. Journal of Controlled Release, 2015, 219, 155-166.	4.8	34
123	Microporous scaffolds support assembly and differentiation of pancreatic progenitors into Î²-cell clusters. Acta Biomaterialia, 2019, 96, 111-122.	4.1	34
124	Defining the Cardiac Fibroblast Secretome in a Fibrotic Microenvironment. Journal of the American Heart Association, 2020, 9, e017025.	1.6	33
125	Roles of transforming growth factorâ€Î²1 and OBâ€cadherin in porcine cardiac valve myofibroblast differentiation. FASEB Journal, 2014, 28, 4551-4562.	0.2	32
126	Reproducible Dendronized PEG Hydrogels via SPAAC Cross-Linking. Biomacromolecules, 2017, 18, 4054-4059.	2.6	32

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127	A Quantitative Comparison of Human HT-1080 Fibrosarcoma Cells and Primary Human Dermal Fibroblasts Identifies a 3D Migration Mechanism with Properties Unique to the Transformed Phenotype. PLoS ONE, 2013, 8, e81689.	1.1	32
128	Localized immune tolerance from FasL-functionalized PLG scaffolds. Biomaterials, 2019, 192, 271-281.	5.7	30
129	A Biosynthetic Scaffold that Facilitates Chondrocyte-Mediated Degradation and Promotes Articular Cartilage Extracellular Matrix Deposition. Regenerative Engineering and Translational Medicine, 2015, 1, 11-21.	1.6	28
130	Immunofunctional photodegradable poly(ethylene glycol) hydrogel surfaces for the capture and release of rare cells. Colloids and Surfaces B: Biointerfaces, 2019, 174, 483-492.	2.5	28
131	Metastatic Conditioning of Myeloid Cells at a Subcutaneous Synthetic Niche Reflects Disease Progression and Predicts Therapeutic Outcomes. Cancer Research, 2020, 80, 602-612.	0.4	28
132	Genes That Escape X Chromosome Inactivation Modulate Sex Differences in Valve Myofibroblasts. Circulation, 2022, 145, 513-530.	1.6	28
133	Programming hydrogels to probe spatiotemporal cell biology. Cell Stem Cell, 2022, 29, 678-691.	5.2	28
134	Porous Silicon Nanoparticles Embedded in Poly(lacticâ€coâ€glycolic acid) Nanofiber Scaffolds Deliver Neurotrophic Payloads to Enhance Neuronal Growth. Advanced Functional Materials, 2020, 30, 2002560.	7.8	27
135	Polycistronic Delivery of IL-10 and NT-3 Promotes Oligodendrocyte Myelination and Functional Recovery in a Mouse Spinal Cord Injury Model. Tissue Engineering - Part A, 2020, 26, 672-682.	1.6	27
136	Integrated surface modification of fully polymeric microfluidic devices using living radical photopolymerization chemistry. Journal of Polymer Science Part A, 2006, 44, 1404-1413.	2.5	26
137	PEGâ€“peptide hydrogels reveal differential effects of matrix microenvironmental cues on melanoma drug sensitivity. Integrative Biology (United Kingdom), 2017, 9, 76-87.	0.6	26
138	Biomaterial Scaffolds Recruit an Aggressive Population of Metastatic Tumor Cells In Vivo. Cancer Research, 2019, 79, 2042-2053.	0.4	26
139	Three-dimensional encapsulation of adult mouse cardiomyocytes in hydrogels with tunable stiffness. Progress in Biophysics and Molecular Biology, 2020, 154, 71-79.	1.4	26
140	Biomaterial Scaffolds as Preâ€metastatic Niche Mimics Systemically Alter the Primary Tumor and Tumor Microenvironment. Advanced Healthcare Materials, 2018, 7, e1700903.	3.9	25
141	Microporous Polymer Scaffolds for the Transplantation of Embryonic Stem Cell Derived Pancreatic Progenitors to a Clinically Translatable Site for the Treatment of Type I Diabetes. ACS Biomaterials Science and Engineering, 2018, 4, 1770-1778.	2.6	25
142	Evaluation of biomaterial scaffold delivery of IL-33 as a localized immunomodulatory agent to support cell transplantation in adipose tissue. Journal of Immunology and Regenerative Medicine, 2018, 1, 1-12.	0.2	25
143	Cellular and molecular targeting for nanotherapeutics in transplantation tolerance. Clinical Immunology, 2015, 160, 14-23.	1.4	24
144	Quantifying heart valve interstitial cell contractile state using highly tunable poly(ethylene glycol) hydrogels. Acta Biomaterialia, 2019, 96, 354-367.	4.1	24

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145	Neutrophil and natural killer cell imbalances prevent muscle stem cellâ€“mediated regeneration following murine volumetric muscle loss. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2111445119.	3.3	24
146	Sponge-mediated lentivirus delivery to acute and chronic spinal cord injuries. Journal of Controlled Release, 2015, 204, 1-10.	4.8	23
147	Cargo-free immunomodulatory nanoparticles combined with anti-PD-1 antibody for treating metastatic breast cancer. Biomaterials, 2021, 269, 120666.	5.7	23
148	Secretome identification of immune cell factors mediating metastatic cell homing. Scientific Reports, 2015, 5, 17566.	1.6	22
149	Phototunable Viscoelasticity in Hydrogels Through Thioester Exchange. Annals of Biomedical Engineering, 2020, 48, 2053-2063.	1.3	22
150	Bioorthogonal click chemistries enable simultaneous spatial patterning of multiple proteins to probe synergistic protein effects on fibroblast function. Biomaterials, 2020, 255, 120205.	5.7	21
151	3D printing of sacrificial thioester elastomers using digital light processing for templating 3D organoid structures in soft biomatrices. Biofabrication, 2021, 13, 044104.	3.7	21
152	Mechanistic contributions of Kupffer cells and liver sinusoidal endothelial cells in nanoparticle-induced antigen-specific immune tolerance. Biomaterials, 2022, 283, 121457.	5.7	21
153	Synergy of Paracrine Signaling During Early-Stage Mouse Ovarian Follicle Development In Vitro. Cellular and Molecular Bioengineering, 2018, 11, 435-450.	1.0	20
154	Cardiac Fibroblasts Mediate a Sexually Dimorphic Fibrotic Response to Î²â€Adrenergic Stimulation. Journal of the American Heart Association, 2021, 10, e018876.	1.6	20
155	Moldâ€castedâ€nonâ€degradable, islet macroâ€encapsulating hydrogel devices for restoration of normoglycemia in diabetic mice. Biotechnology and Bioengineering, 2016, 113, 2485-2495.	1.7	19
156	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. Angewandte Chemie, 2017, 129, 12300-12304.	1.6	19
157	Evaluation of encapsulating and microporous nondegradable hydrogel scaffold designs on islet engraftment in rodent models of diabetes. Biotechnology and Bioengineering, 2018, 115, 2356-2364.	1.7	19
158	PEGâ€“Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie, 2019, 131, 10017-10021.	1.6	19
159	Calcium Signaling Regulates Valvular Interstitial Cell Alignment and Myofibroblast Activation in Fastâ€Relaxing Boronate Hydrogels. Macromolecular Bioscience, 2020, 20, e2000268.	2.1	19
160	Ligands, Receptors, and Transcription Factors that Mediate Inter-Cellular and Intra-Cellular Communication during Ovarian Follicle Development. Reproductive Sciences, 2020, 27, 690-703.	1.1	19
161	Restoring normal islet mass and function in type 1 diabetes through regenerative medicine and tissue engineering. Lancet Diabetes and Endocrinology,the, 2021, 9, 708-724.	5.5	19
162	Quantification of particle-conjugated or particle-encapsulated peptides on interfering reagent backgrounds. BioTechniques, 2014, 57, 39-44.	0.8	18

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163	Optimizing PLG nanoparticle-peptide delivery platforms for transplantation tolerance using an allogeneic skin transplant model. Biomaterials, 2019, 210, 70-82.	5.7	18
164	Mesenchymal stem <scp>cellâ€inspired</scp> microgel scaffolds to control macrophage polarization. Bioengineering and Translational Medicine, 2021, 6, e10217.	3.9	18
165	Thiolâ€ene Hydrogels for Local Delivery of PTH for Bone Regeneration in Critical Size defects. Journal of Orthopaedic Research, 2020, 38, 536-544.	1.2	16
166	Engineered Niches to Analyze Mechanisms of Metastasis and Guide Precision Medicine. Cancer Research, 2020, 80, 3786-3794.	0.4	16
167	Mechanobiological Interactions between Dynamic Compressive Loading and Viscoelasticity on Chondrocytes in Hydrazone Covalent Adaptable Networks for Cartilage Tissue Engineering. Advanced Healthcare Materials, 2021, 10, e2002030.	3.9	16
168	Controlled Degradation of Cast and 3-D Printed Photocurable Thioester Networks via Thiolâ€“Thioester Exchange. Macromolecules, 2022, 55, 1376-1385.	2.2	16
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170	Combined, independent small molecule release and shape memory via nanogel-coated thiourethane polymer networks. Polymer Chemistry, 2016, 7, 816-825.	1.9	15
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