Rosalyn D Abbott

List of Publications by Year
in descending order

229	38,235	88	191
papers	citations	h-index	g-index

3919 2812

233	233	233	21993
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Silk-based biomaterials. Biomaterials, 2003, 24, 401-416.	5.7	2,981
2	Materials fabrication from Bombyx mori silk fibroin. Nature Protocols, 2011, 6, 1612-1631.	5.5	2,265
3	Silk as a biomaterial. Progress in Polymer Science, 2007, 32, 991-1007.	11.8	2,208
4	New Opportunities for an Ancient Material. Science, 2010, 329, 528-531.	6.0	1,224
5	Mechanism of silk processing in insects and spiders. Nature, 2003, 424, 1057-1061.	13.7	1,214
6	Three-dimensional aqueous-derived biomaterial scaffolds from silk fibroin. Biomaterials, 2005, 26, 2775-2785.	5.7	884
7	Stem cell-based tissue engineering with silk biomaterials. Biomaterials, 2006, 27, 6064-6082.	5.7	869
8	Porous 3-D Scaffolds from Regenerated Silk Fibroin. Biomacromolecules, 2004, 5, 718-726.	2.6	807
9	Silk matrix for tissue engineered anterior cruciate ligaments. Biomaterials, 2002, 23, 4131-4141.	5.7	791
10	Functionalized silk-based biomaterials for bone formation. Journal of Biomedical Materials Research Part B, 2001, 54, 139-148.	3.0	738
11	The inflammatory responses to silk films in vitro and in vivo. Biomaterials, 2005, 26, 147-155.	5.7	725
12	ElectrospinningBombyx moriSilk with Poly(ethylene oxide). Biomacromolecules, 2002, 3, 1233-1239.	2.6	679
13	In vivo degradation of three-dimensional silk fibroin scaffolds. Biomaterials, 2008, 29, 3415-3428.	5.7	679
14	In vitro degradation of silk fibroin. Biomaterials, 2005, 26, 3385-3393.	5.7	657
15	Sonication-induced gelation of silk fibroin for cell encapsulation. Biomaterials, 2008, 29, 1054-1064.	5.7	575
16	Water-insoluble silk films with silk I structure. Acta Biomaterialia, 2010, 6, 1380-1387.	4.1	530
17	Regulation of Silk Material Structure by Temperature-Controlled Water Vapor Annealing. Biomacromolecules, 2011, 12, 1686-1696.	2.6	530
18	Macrophage responses to silk. Biomaterials, 2003, 24, 3079-3085.	5.7	504

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19	In vitro cartilage tissue engineering with 3D porous aqueous-derived silk scaffolds and mesenchymal stem cells. Biomaterials, 2005, 26, 7082-7094.	5.7	412
20	Cartilage tissue engineering with silk scaffolds and human articular chondrocytes. Biomaterials, 2006, 27, 4434-4442.	5.7	386
21	Silk nanospheres and microspheres from silk/pva blend films for drug delivery. Biomaterials, 2010, 31, 1025-1035.	5.7	372
22	InÂvivo bioresponses to silk proteins. Biomaterials, 2015, 71, 145-157.	5.7	357
23	Engineering adipose-like tissue in vitro and in vivo utilizing human bone marrow and adipose-derived mesenchymal stem cells with silk fibroin 3D scaffolds. Biomaterials, 2007, 28, 5280-5290.	5.7	340
24	Highly Tunable Elastomeric Silk Biomaterials. Advanced Functional Materials, 2014, 24, 4615-4624.	7.8	338
25	High-strength silk protein scaffolds for bone repair. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7699-7704.	3.3	337
26	Control of in vitro tissue-engineered bone-like structures using human mesenchymal stem cells and porous silk scaffolds. Biomaterials, 2007, 28, 1152-1162.	5.7	335
27	Silk-based delivery systems of bioactive molecules. Advanced Drug Delivery Reviews, 2010, 62, 1497-1508.	6.6	324
28	Silkworm silk-based materials and devices generated using bio-nanotechnology. Chemical Society Reviews, 2018, 47, 6486-6504.	18.7	324
29	Vortex-Induced Injectable Silk Fibroin Hydrogels. Biophysical Journal, 2009, 97, 2044-2050.	0.2	317
30	Biocompatible Silk Printed Optical Waveguides. Advanced Materials, 2009, 21, 2411-2415.	11.1	308
31	Spider silks and their applications. Trends in Biotechnology, 2008, 26, 244-251.	4.9	291
32	Influence of macroporous protein scaffolds on bone tissue engineering from bone marrow stem cells. Biomaterials, 2005, 26, 4442-4452.	5.7	283
33	Silk-based biomaterials for sustained drug delivery. Journal of Controlled Release, 2014, 190, 381-397.	4.8	283
34	Silk microspheres for encapsulation and controlled release. Journal of Controlled Release, 2007, 117, 360-370.	4.8	276
35	Construction, Cloning, and Expression of Synthetic Genes Encoding Spider Dragline Silk. Biochemistry, 1995, 34, 10879-10885.	1.2	272
36	Bone tissue engineering with premineralized silk scaffolds. Bone, 2008, 42, 1226-1234.	1.4	270

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37	Mechanical and thermal properties of dragline silk from the spider Nephila clavipes. Polymers for Advanced Technologies, 1994, 5, 401-410.	1.6	269
38	Functionalized Silk Biomaterials for Wound Healing. Advanced Healthcare Materials, 2013, 2, 206-217.	3.9	264
39	Directâ€Write Assembly of Microperiodic Silk Fibroin Scaffolds for Tissue Engineering Applications. Advanced Functional Materials, 2008, 18, 1883-1889.	7.8	261
40	Bioengineered functional brain-like cortical tissue. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13811-13816.	3.3	255
41	Silk fibroin biomaterials for controlled release drug delivery. Expert Opinion on Drug Delivery, 2011, 8, 797-811.	2.4	248
42	Silk fibroin microtubes for blood vessel engineering. Biomaterials, 2007, 28, 5271-5279.	5.7	246
43	Mapping Domain Structures in Silks from Insects and Spiders Related to Protein Assembly. Journal of Molecular Biology, 2004, 335, 27-40.	2.0	238
44	Mechanism of enzymatic degradation of beta-sheet crystals. Biomaterials, 2010, 31, 2926-2933.	5.7	227
45	Quantitative metabolic imaging using endogenous fluorescence to detect stem cell differentiation. Scientific Reports, 2013, 3, 3432.	1.6	215
46	Adipose Tissue Engineering for Soft Tissue Regeneration. Tissue Engineering - Part B: Reviews, 2010, 16, 413-426.	2.5	212
47	Structureâ€"functionâ€"propertyâ€"design interplay in biopolymers: Spider silk. Acta Biomaterialia, 2014, 10, 1612-1626.	4.1	206
48	RGD-Functionalized Bioengineered Spider Dragline Silk Biomaterial. Biomacromolecules, 2006, 7, 3139-3145.	2.6	193
49	Silk based bioinks for soft tissue reconstruction using 3-dimensional (3D) printing with inÂvitro and inÂvivo assessments. Biomaterials, 2017, 117, 105-115.	5.7	189
50	Cartilage-like Tissue Engineering Using Silk Scaffolds and Mesenchymal Stem Cells. Tissue Engineering, 2006, 12, 2729-2738.	4.9	181
51	3D Bioprinting of Selfâ€Standing Silkâ€Based Bioink. Advanced Healthcare Materials, 2018, 7, e1701026.	3.9	177
52	Stabilization of Enzymes in Silk Films. Biomacromolecules, 2009, 10, 1032-1042.	2.6	174
53	Inkjet Printing of Regenerated Silk Fibroin: From Printable Forms to Printable Functions. Advanced Materials, 2015, 27, 4273-4279.	11.1	174
54	Nanolayer biomaterial coatings of silk fibroin for controlled release. Journal of Controlled Release, 2007, 121, 190-199.	4.8	164

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55	A 3D human brainâ€"like tissue model of herpes-induced Alzheimerâ€™s disease. Science Advances, 2020, 6, eaay8828.	4.7	159
56	Silk Hydrogels as Soft Substrates for Neural Tissue Engineering. Advanced Functional Materials, 2013, 23, 5140-5149.	7.8	157
57	Protein-Based Block Copolymers. Biomacromolecules, 2011, 12, 269-289.	2.6	155
58	Recombinant <scp>DNA</scp> production of spider silk proteins. Microbial Biotechnology, 2013, 6, 651-663.	2.0	153
59	Stabilization of vaccines and antibiotics in silk and eliminating the cold chain. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11981-11986.	3.3	148
60	Relationships between degradability of silk scaffolds and osteogenesis. Biomaterials, 2010, 31, 6162-6172.	5.7	146
61	Lyophilized Silk Sponges: A Versatile Biomaterial Platform for Soft Tissue Engineering. ACS Biomaterials Science and Engineering, 2015, 1, 260-270.	2.6	146
62	Impact of silk biomaterial structure on proteolysis. Acta Biomaterialia, 2015, 11, 212-221.	4.1	142
63	Thermoplastic moulding of regenerated silk. Nature Materials, 2020, 19, 102-108.	13.3	138
64	Directâ€Write Assembly of 3D Silk/Hydroxyapatite Scaffolds for Bone Coâ€Cultures. Advanced Healthcare Materials, 2012, 1, 729-735.	3.9	136
65	Bone Regeneration on Macroporous Aqueous-Derived Silk 3-D Scaffolds. Macromolecular Bioscience, 2007, 7, 643-655.	2.1	132
66	Gel spinning of silk tubes for tissue engineering. Biomaterials, 2008, 29, 4650-4657.	5.7	131
67	Robust bioengineered 3D functional human intestinal epithelium. Scientific Reports, 2015, 5, 13708.	1.6	131
68	Silk fibroin electrogelation mechanisms. Acta Biomaterialia, 2011, 7, 2394-2400.	4.1	128
69	<i>In Vitro</i>3D Model for Human Vascularized Adipose Tissue. Tissue Engineering - Part A, 2009, 15, 2227-2236.	1.6	127
70	Stabilization and Release of Enzymes from Silk Films. Macromolecular Bioscience, 2010, 10, 359-368.	2.1	127
71	Dityrosine Cross-Linking in Designing Biomaterials. ACS Biomaterials Science and Engineering, 2016, 2, 2108-2121.	2.6	121
72	Bioengineered silk protein-based gene delivery systems. Biomaterials, 2009, 30, 5775-5784.	5.7	118

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73	Comparative chondrogenesis of human cell sources in 3D scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 348-360.	1.3	116
74	A complex 3D human tissue culture system based on mammary stromal cells and silk scaffolds for modeling breast morphogenesis and function. Biomaterials, 2010, 31, 3920-3929.	5.7	116
75	Self-Assembly of Genetically Engineered Spider Silk Block Copolymers. Biomacromolecules, 2009, 10, 229-236.	2.6	115
76	A silk-based scaffold platform with tunable architecture for engineering critically-sized tissue constructs. Biomaterials, 2012, 33, 9214-9224.	5.7	114
77	In vitro 3D Fullâ€Thickness Skinâ€Equivalent Tissue Model Using Silk and Collagen Biomaterials. Macromolecular Bioscience, 2012, 12, 1627-1636.	2.1	113
78	Ingrowth of human mesenchymal stem cells into porous silk particle reinforced silk composite scaffolds: An in vitro study. Acta Biomaterialia, 2011, 7, 144-151.	4.1	112
79	Engineered cell and tissue models of pulmonary fibrosis. Advanced Drug Delivery Reviews, 2018, 129, 78-94.	6.6	108
80	Bioengineered 3D Human Kidney Tissue, a Platform for the Determination of Nephrotoxicity. PLoS ONE, 2013, 8, e59219.	1.1	105
81	Notochordal conditioned media from tissue increases proteoglycan accumulation and promotes a healthy nucleus pulposus phenotype in human mesenchymal stem cells. Arthritis Research and Therapy, 2011, 13, R81.	1.6	101
82	Bio-functionalized silk hydrogel microfluidic systems. Biomaterials, 2016, 93, 60-70.	5.7	101
83	Regeneration of high-quality silk fibroin fiber by wet spinning from CaCl 2 â€“formic acid solvent. Acta Biomaterialia, 2015, 12, 139-145.	4.1	100
84	InÂvitro 3D corneal tissue model with epithelium, stroma, and innervation. Biomaterials, 2017, 112, 1-9.	5.7	98
85	Corneal stromal bioequivalents secreted on patterned silk substrates. Biomaterials, 2014, 35, 3744-3755.	5.7	97
86	Functionalized 3D-printed silk-hydroxyapatite scaffolds for enhanced bone regeneration with innervation and vascularization. Biomaterials, 2021, 276, 120995.	5.7	96
87	Evaluation of gel spun silk-based biomaterials in a murine model of bladder augmentation. Biomaterials, 2011, 32, 808-818.	5.7	95
88	Spider Silk-Based Gene Carriers for Tumor Cell-Specific Delivery. Bioconjugate Chemistry, 2011, 22, 1605-1610.	1.8	93
89	Silk I and Silk II studied by fast scanning calorimetry. Acta Biomaterialia, 2017, 55, 323-332.	4.1	92
90	Gene delivery mediated by recombinant silk proteins containing cationic and cell binding motifs. Journal of Controlled Release, 2010, 146, 136-143.	4.8	90

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91	Silk as a Biomaterial to Support Long-Term Three-Dimensional Tissue Cultures. ACS Applied Materials & Interfaces, 2016, 8, 21861-21868.	4.0	90
92	Optical Spectroscopy and Imaging for the Noninvasive Evaluation of Engineered Tissues. Tissue Engineering - Part B: Reviews, 2008, 14, 321-340.	2.5	87
93	In vitro bioengineered model of cortical brain tissue. Nature Protocols, 2015, 10, 1362-1373.	5.5	87
94	Silkâ€"Its Mysteries, How It Is Made, and How It Is Used. ACS Biomaterials Science and Engineering, 2015, 1, 864-876.	2.6	85
95	Tissue-Engineered Three-Dimensional<i>In Vitro</i>Models for Normal and Diseased Kidney. Tissue Engineering - Part A, 2010, 16, 2821-2831.	1.6	84
96	Polyol-Silk Bioink Formulations as Two-Part Room-Temperature Curable Materials for 3D Printing. ACS Biomaterials Science and Engineering, 2015, 1, 780-788.	2.6	84
97	3D freeform printing of silk fibroin. Acta Biomaterialia, 2018, 71, 379-387.	4.1	83
98	3D extracellular matrix microenvironment in bioengineered tissue models of primary pediatric and adult brain tumors. Nature Communications, 2019, 10, 4529.	5.8	80
99	In vitro enteroid-derived three-dimensional tissue model of human small intestinal epithelium with innate immune responses. PLoS ONE, 2017, 12, e0187880.	1.1	79
100	Green Process to Prepare Silk Fibroin/Gelatin Biomaterial Scaffolds. Macromolecular Bioscience, 2010, 10, 289-298.	2.1	77
101	Characterization of metabolic changes associated with the functional development of 3D engineered tissues by non-invasive, dynamic measurement of individual cell redox ratios. Biomaterials, 2012, 33, 5341-5348.	5.7	77
102	Tissue-engineered kidney disease models. Advanced Drug Delivery Reviews, 2014, 69-70, 67-80.	6.6	76
103	Silk: molecular organization and control of assembly. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 165-167.	1.8	75
104	Role of Polyalanine Domains in <i>Î²</i>â€Sheet Formation in Spider Silk Block Copolymers. Macromolecular Bioscience, 2010, 10, 49-59.	2.1	75
105	Impact of processing parameters on the haemocompatibility of Bombyx mori silk films. Biomaterials, 2012, 33, 1017-1023.	5.7	74
106	Silkâ€Based Nanocomplexes with Tumorâ€Homing Peptides for Tumorâ€Specific Gene Delivery. Macromolecular Bioscience, 2012, 12, 75-82.	2.1	74
107	Strategies for improving the physiological relevance of human engineered tissues. Trends in Biotechnology, 2015, 33, 401-407.	4.9	74
108	Recent advances in 3D printing with protein-based inks. Progress in Polymer Science, 2021, 115, 101375.	11.8	74

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109	Bladder tissue regeneration using acellular bi-layer silk scaffolds in aÂlarge animal model of augmentation cystoplasty. Biomaterials, 2013, 34, 8681-8689.	5.7	73
110	Adipose Tissue Fibrosis: Mechanisms, Models, and Importance. International Journal of Molecular Sciences, 2020, 21, 6030.	1.8	73
111	Inkjet Printing of Silk Nest Arrays for Cell Hosting. Biomacromolecules, 2014, 15, 1428-1435.	2.6	72
112	Fiberâ€Based Biopolymer Processing as a Route toward Sustainability. Advanced Materials, 2022, 34, e2105196.	11.1	71
113	Structure and Biodegradation Mechanism of Milled Bombyx mori Silk Particles. Biomacromolecules, 2012, 13, 2503-2512.	2.6	70
114	The Use of Silk as a Scaffold for Mature, Sustainable Unilocular Adipose 3D Tissue Engineered Systems. Advanced Healthcare Materials, 2016, 5, 1667-1677.	3.9	69
115	Bioelectric modulation of wound healing in a 3D inÂvitro model of tissue-engineered bone. Biomaterials, 2013, 34, 6695-6705.	5.7	68
116	The performance of silk scaffolds in a rat model of augmentation cystoplasty. Biomaterials, 2013, 34, 4758-4765.	5.7	64
117	Amorphous Silk Nanofiber Solutions for Fabricating Silk-Based Functional Materials. Biomacromolecules, 2016, 17, 3000-3006.	2.6	64
118	Expandable and Rapidly Differentiating Human Induced Neural Stem Cell Lines for Multiple Tissue Engineering Applications. Stem Cell Reports, 2016, 7, 557-570.	2.3	64
119	Tuning Chemical and Physical Cross-Links in Silk Electrogels for Morphological Analysis and Mechanical Reinforcement. Biomacromolecules, 2013, 14, 2629-2635.	2.6	63
120	Sustainable Three-Dimensional Tissue Model of Human Adipose Tissue. Tissue Engineering - Part C: Methods, 2013, 19, 745-754.	1.1	63
121	Silk Fibroin as a Green Material. ACS Biomaterials Science and Engineering, 2021, 7, 3530-3544.	2.6	63
122	Soft Tissue Augmentation Using Silk Gels: An In Vitro and In Vivo Study. Journal of Periodontology, 2009, 80, 1852-1858.	1.7	62
123	Regenerative potential of TGFÎ²3â€‰+â€‰Dex and notochordal cell conditioned media on degenerated human intervertebral disc cells. Journal of Orthopaedic Research, 2012, 30, 482-488.	1.2	61
124	Cervical Tissue Engineering Using Silk Scaffolds and Human Cervical Cells. Tissue Engineering - Part A, 2010, 16, 2101-2112.	1.6	59
125	<scp>I</scp>mpact of Sterilization on the Enzymatic Degradation and Mechanical Properties of Silk Biomaterials. Macromolecular Bioscience, 2014, 14, 257-269.	2.1	59
126	Modulation of vincristine and doxorubicin binding and release from silk films. Journal of Controlled Release, 2015, 220, 229-238.	4.8	59

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127	3D biomaterial matrix to support long term, full thickness, immuno-competent human skin equivalents with nervous system components. Biomaterials, 2019, 198, 194-203.	5.7	59
128	Ultrasound Sonication Effects on Silk Fibroin Protein. Macromolecular Materials and Engineering, 2013, 298, 1201-1208.	1.7	57
129	Mechanical improvements to reinforced porous silk scaffolds. Journal of Biomedical Materials Research - Part A, 2011, 99A, 16-28.	2.1	56
130	Injectable Silk Foams for Soft Tissue Regeneration. Advanced Healthcare Materials, 2015, 4, 452-459.	3.9	56
131	Control of silk microsphere formation using polyethylene glycol (PEG). Acta Biomaterialia, 2016, 39, 156-168.	4.1	56
132	Bioengineered elastin- and silk-biomaterials for drug and gene delivery. Advanced Drug Delivery Reviews, 2020, 160, 186-198.	6.6	56
133	Engineering silk materials: From natural spinning to artificial processing. Applied Physics Reviews, 2020, 7, .	5.5	56
134	The use of bi-layer silk fibroin scaffolds and small intestinal submucosa matrices to support bladder tissue regeneration in a rat model of spinal cord injury. Biomaterials, 2014, 35, 7452-7459.	5.7	54
135	From Silk Spinning to 3D Printing: Polymer Manufacturing using Directed Hierarchical Molecular Assembly. Advanced Healthcare Materials, 2020, 9, e1901552.	3.9	53
136	3D bioengineered tissue model of the large intestine to study inflammatory bowel disease. Biomaterials, 2019, 225, 119517.	5.7	50
137	Photo-Crosslinked Silk Fibroin for 3D Printing. Polymers, 2020, 12, 2936.	2.0	50
138	Recombinant protein blends: silk beyond natural design. Current Opinion in Biotechnology, 2016, 39, 1-7.	3.3	49
139	Processing Windows for Forming Silk Fibroin Biomaterials into a 3D Porous Matrix. Australian Journal of Chemistry, 2005, 58, 716.	0.5	47
140	Shape Memory Silk Protein Sponges for Minimally Invasive Tissue Regeneration. Advanced Healthcare Materials, 2017, 6, 1600762.	3.9	46
141	Functional maturation of human neural stem cells in a 3D bioengineered brain model enriched with fetal brain-derived matrix. Scientific Reports, 2019, 9, 17874.	1.6	46
142	A silk-based encapsulation platform for pancreatic islet transplantation improves islet function<i>in vivo</i>. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 887-895.	1.3	45
143	Effects of enzymatic digestion on compressive properties of rat intervertebral discs. Journal of Biomechanics, 2010, 43, 1067-1073.	0.9	44
144	Sustained volume retention in vivo with adipocyte and lipoaspirate seeded silk scaffolds. Biomaterials, 2013, 34, 2960-2968.	5.7	44

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145	The importance of the neuroâ€immunoâ€cutaneous system on human skin equivalent design. Cell Proliferation, 2019, 52, e12677.	2.4	44
146	Corneal pain and experimental model development. Progress in Retinal and Eye Research, 2019, 71, 88-113.	7.3	43
147	Purification and cytotoxicity of tagâ€free bioengineered spider silk proteins. Journal of Biomedical Materials Research - Part A, 2013, 101A, 456-464.	2.1	40
148	Functional and Sustainable 3D Human Neural Network Models from Pluripotent Stem Cells. ACS Biomaterials Science and Engineering, 2018, 4, 4278-4288.	2.6	40
149	Bioengineered <i>in Vitro</i> Tissue Model of Fibroblast Activation for Modeling Pulmonary Fibrosis. ACS Biomaterials Science and Engineering, 2019, 5, 2417-2429.	2.6	40
150	Scaffolding kidney organoids on silk. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 812-822.	1.3	39
151	Injectable Desferrioxamine-Laden Silk Nanofiber Hydrogels for Accelerating Diabetic Wound Healing. ACS Biomaterials Science and Engineering, 2021, 7, 1147-1158.	2.6	39
152	Bioinspired Three-Dimensional Human Neuromuscular Junction Development in Suspended Hydrogel Arrays. Tissue Engineering - Part C: Methods, 2018, 24, 346-359.	1.1	38
153	Noninvasive Metabolic Imaging of Engineered 3D Human Adipose Tissue in a Perfusion Bioreactor. PLoS ONE, 2013, 8, e55696.	1.1	38
154	A Longâ€Living Bioengineered Neural Tissue Platform to Study Neurodegeneration. Macromolecular Bioscience, 2020, 20, e2000004.	2.1	36
155	Non-invasive monitoring of cell metabolism and lipid production in 3D engineered human adipose tissues using label-free multiphoton microscopy. Biomaterials, 2013, 34, 8607-8616.	5.7	35
156	Acellular bi-layer silk fibroin scaffolds support functional tissue regeneration in a rat model of onlay esophagoplasty. Biomaterials, 2015, 53, 149-159.	5.7	35
157	Long term perfusion system supporting adipogenesis. Methods, 2015, 84, 84-89.	1.9	35
158	Implantable chemotherapy-loaded silk protein materials for neuroblastoma treatment. International Journal of Cancer, 2017, 140, 726-735.	2.3	35
159	Engineering Biomaterials for Enhanced Tissue Regeneration. Current Stem Cell Reports, 2016, 2, 140-146.	0.7	34
160	Immuno-Informed 3D Silk Biomaterials for Tailoring Biological Responses. ACS Applied Materials & Interfaces, 2016, 8, 29310-29322.	4.0	34
161	Quantitative characterization of mineralized silk film remodeling during long-term osteoblastâ€“osteoclast co-culture. Biomaterials, 2014, 35, 3794-3802.	5.7	33
162	Adipogenic Differentiation of Human Adipose-Derived Stem Cells on 3D Silk Scaffolds. Methods in Molecular Biology, 2011, 702, 319-330.	0.4	33

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163	Predicting Silk Fiber Mechanical Properties through Multiscale Simulation and Protein Design. ACS Biomaterials Science and Engineering, 2017, 3, 1542-1556.	2.6	32
164	Fat-On-A-Chip Models for Research and Discovery in Obesity and Its Metabolic Comorbidities. Tissue Engineering - Part B: Reviews, 2020, 26, 586-595.	2.5	32
165	Potential Involvement of Varicella Zoster Virus in Alzheimerâ€™s Disease via Reactivation of Quiescent Herpes Simplex Virus Type 1. Journal of Alzheimer's Disease, 2022, 88, 1189-1200.	1.2	32
166	Fabrication of Silk Scaffolds with Nanomicroscaled Structures and Tunable Stiffness. Biomacromolecules, 2017, 18, 2073-2079.	2.6	31
167	Microscopic considerations for optimizing silk biomaterials. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2019, 11, e1534.	3.3	31
168	Silk Polymers and Nanoparticles: A Powerful Combination for the Design of Versatile Biomaterials. Frontiers in Chemistry, 2020, 8, 604398.	1.8	31
169	Niclosamide rescues microcephaly in a humanized <i>in vivo</i> model of Zika infection using human induced neural stem cells. Biology Open, 2018, 7, .	0.6	30
170	Engineering Biomaterialâ€"Drug Conjugates for Local and Sustained Chemotherapeutic Delivery. Bioconjugate Chemistry, 2015, 26, 1212-1223.	1.8	29
171	Protein composites from silkworm cocoons as versatile biomaterials. Acta Biomaterialia, 2021, 121, 180-192.	4.1	29
172	Effects of Hyperinsulinemia on Lipolytic Function of Three-Dimensional Adipocyte/Endothelial Co-Cultures. Tissue Engineering - Part C: Methods, 2010, 16, 1157-1165.	1.1	28
173	3D printing with silk: considerations and applications. Connective Tissue Research, 2020, 61, 163-173.	1.1	28
174	Functional Characterization of Three-Dimensional Cortical Cultures for InÂVitro Modeling of Brain Networks. IScience, 2020, 23, 101434.	1.9	28
175	Into the groove: instructive silk-polypyrrole films with topographical guidance cues direct DRG neurite outgrowth. Journal of Biomaterials Science, Polymer Edition, 2015, 26, 1327-1342.	1.9	27
176	Localized Immunomodulatory Silk Macrocapsules for Islet-like Spheroid Formation and Sustained Insulin Production. ACS Biomaterials Science and Engineering, 2017, 3, 2443-2456.	2.6	27
177	Stress and matrixâ€responsive cytoskeletal remodeling in fibroblasts. Journal of Cellular Physiology, 2013, 228, 50-57.	2.0	26
178	Degenerative Grade Affects the Responses of Human Nucleus Pulposus Cells to Link-N, CTGF, and TGFÎ²3. Journal of Spinal Disorders and Techniques, 2013, 26, E86-E94.	1.8	26
179	Lipolytic Function of Adipocyte/Endothelial Cocultures. Tissue Engineering - Part A, 2011, 17, 1437-1444.	1.6	25
180	Mechanisms of action, chemical characteristics, and model systems of obesogens. BMC Biomedical Engineering, 2020, 2, 6.	1.7	24

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181	Biâ€Layered Tubular Microfiber Scaffolds as Functional Templates for Engineering Human Intestinal Smooth Muscle Tissue. Advanced Functional Materials, 2020, 30, 2000543.	7.8	24
182	Silk ionomers for encapsulation and differentiation of human MSCs. Biomaterials, 2012, 33, 7375-7385.	5.7	23
183	Serially Transplanted Nonpericytic CD146âˆ’ Adipose Stromal/Stem Cells in Silk Bioscaffolds Regenerate Adipose Tissue In Vivo. Stem Cells, 2016, 34, 1097-1111.	1.4	23
184	Development of a Three-Dimensional Adipose Tissue Model for Studying Embryonic Exposures to Obesogenic Chemicals. Annals of Biomedical Engineering, 2017, 45, 1807-1818.	1.3	23
185	<i>In situ</i> ultrasound imaging of silk hydrogel degradation and neovascularization. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 822-830.	1.3	22
186	Flexible Water-Absorbing Silk-Fibroin Biomaterial Sponges with Unique Pore Structure for Tissue Engineering. ACS Biomaterials Science and Engineering, 2020, 6, 1641-1649.	2.6	22
187	Hormone-responsive 3D multicellular culture model of human breast tissue. Biomaterials, 2012, 33, 3411-3420.	5.7	21
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