Eileen Gentleman

List of Publications by Year
in descending order

66 papers	4,860 citations	117453 34 h-index	114278 63 g-index
71 all docs	71 docs citations	71 times ranked	7804 citing authors

#	Article	IF	Citations
1	The effects of strontium-substituted bioactive glasses on osteoblasts and osteoclasts in vitro. Biomaterials, 2010, 31, 3949-3956.	5.7	523
2	The role of intracellular calcium phosphate in osteoblast-mediated bone apatite formation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14170-14175.	3.3	429
3	Substrate stiffness affects early differentiation events in embryonic stem cells. , 2009, 18, 1-14.		387
4	Mechanical characterization of collagen fibers and scaffolds for tissue engineering. Biomaterials, 2003, 24, 3805-3813.	5.7	344
5	Nano-analytical electron microscopy reveals fundamental insights into human cardiovascular tissue calcification. Nature Materials, 2013, 12, 576-583.	13.3	228
6	Comparative materials differences revealed in engineered bone as a function of cell-specific differentiation. Nature Materials, 2009, 8, 763-770.	13.3	223
7	The role of surface free energy in osteoblastâ€“biomaterial interactions. International Materials Reviews, 2014, 59, 417-429.	9.4	159
8	Anisotropic Fibrous Scaffolds for Articular Cartilage Regeneration. Tissue Engineering - Part A, 2012, 18, 2073-2083.	1.6	135
9	Scaffolds for stem cells. Materials Today, 2006, 9, 26-33.	8.3	121
10	Bioactive Glass Scaffolds for Bone Regeneration. Elements, 2007, 3, 393-399.	0.5	117
11	Evolving insights in cellâ€“matrix interactions: Elucidating how non-soluble properties of the extracellular niche direct stem cell fate. Acta Biomaterialia, 2015, 11, 3-16.	4.1	115
12	Exploiting Advanced Hydrogel Technologies to Address Key Challenges in Regenerative Medicine. Advanced Healthcare Materials, 2018, 7, e1700939.	3.9	105
13	Materials characterisation and cytotoxic assessment of strontium-substituted bioactive glasses for bone regeneration. Journal of Materials Chemistry, 2010, 20, 8934.	6.7	102
14	Bi-directional cell-pericellular matrix interactions direct stem cell fate. Nature Communications, 2018, 9, 4049.	5.8	90
15	Surface properties and ion release from fluoride-containing bioactive glasses promote osteoblast differentiation and mineralization in vitro. Acta Biomaterialia, 2013, 9, 5771-5779.	4.1	87
16	Extracellular matrix-mediated osteogenic differentiation of murine embryonic stem cells. Biomaterials, 2010, 31, 3244-3252.	5.7	86
17	Benefits and drawbacks of zinc in glass ionomer bone cements. Biomedical Materials (Bristol), 2011, 6, 045007.	1.7	78
18	Strontium- and Zinc-Alginate Hydrogels for Bone Tissue Engineering. Tissue Engineering - Part A, 2011, 17, 2713-2722.	1.6	76

#	Article	IF	Citations
19	Monomeric, porous type II collagen scaffolds promote chondrogenic differentiation of human bone marrow mesenchymal stem cells in vitro. Scientific Reports, 2017, 7, 43519.	1.6	76
20	Development of Ligament-Like Structural Organization and Properties in Cell-Seeded Collagen Scaffolds in vitro. Annals of Biomedical Engineering, 2006, 34, 726-736.	1.3	72
21	The role of material structure and mechanical properties in cellâ€“matrix interactions. Journal of Materials Chemistry B, 2014, 2, 2345.	2.9	66
22	ILC1 drive intestinal epithelial and matrix remodelling. Nature Materials, 2021, 20, 250-259.	13.3	64
23	Measuring the elastic modulus of soft culture surfaces and three-dimensional hydrogels using atomic force microscopy. Nature Protocols, 2021, 16, 2418-2449.	5.5	64
24	Collagen Composite Biomaterials Resist Contraction While Allowing Development of Adipocytic Soft Tissue In Vitro. Tissue Engineering, 2006, 12, 1639-1649.	4.9	62
25	Harnessing the secreted extracellular matrix to engineer tissues. Nature Biomedical Engineering, 2020, 4, 357-363.	11.6	62
26	Sparse feature selection methods identify unexpected global cellular response to strontium-containing materials. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4280-4285.	3.3	61
27	Multiscale analyses reveal native-like lamellar bone repair and near perfect bone-contact with porous strontium-loaded bioactive glass. Biomaterials, 2019, 209, 152-162.	5.7	54
28	Differential Regulation of Human Bone Marrow Mesenchymal Stromal Cell Chondrogenesis by Hypoxia Inducible Factor-1Î± Hydroxylase Inhibitors. Stem Cells, 2018, 36, 1380-1392.	1.4	51
29	Characterization of Porcine Aortic Valvular Interstitial Cell â€˜Calcifiedâ€™ Nodules. PLoS ONE, 2012, 7, e48154.	1.1	47
30	Short Collagen Fibers Provide Control of Contraction and Permeability in Fibroblast-Seeded Collagen Gels. Tissue Engineering, 2004, 10, 421-427.	4.9	46
31	Hypoxia impacts human MSC response to substrate stiffness during chondrogenic differentiation. Acta Biomaterialia, 2019, 89, 73-83.	4.1	46
32	Composition of Mineral Produced by Dental Mesenchymal Stem Cells. Journal of Dental Research, 2015, 94, 1568-1574.	2.5	39
33	Translation Approach for Dentine Regeneration Using GSK-3 Antagonists. Journal of Dental Research, 2020, 99, 544-551.	2.5	39
34	Optimisation of lithium-substituted bioactive glasses to tailor cell response for hard tissue repair. Journal of Materials Science, 2017, 52, 8832-8844.	1.7	38
35	Neighboring cells override 3D hydrogel matrix cues to drive human MSC quiescence. Biomaterials, 2018, 176, 13-23.	5.7	38
36	Collective Cell Behavior in Mechanosensing ofÂSubstrate Thickness. Biophysical Journal, 2018, 114, 2743-2755.	0.2	38

#	Article	IF	Citations
37	Perivascular Stem Cells at the Tip of Mouse Incisors Regulate Tissue Regeneration. Journal of Bone and Mineral Research, 2016, 31, 514-523.	3.1	37
38	Intrinsic Mechanical Cues and Their Impact on Stem Cells and Embryogenesis. Frontiers in Cell and Developmental Biology, 2021, 9, 761871.	1.8	37
39	Adhesive Hydrogels for Maxillofacial Tissue Regeneration Using Minimally Invasive Procedures. Advanced Healthcare Materials, 2020, 9, e1901134.	3.9	29
40	Inadequate fine-tuning of protein synthesis and failure of amino acid homeostasis following inhibition of the ATPase VCP/p97. Cell Death and Disease, 2015, 6, e2031-e2031.	2.7	28
41	Historic and current strategies in bone tissue engineering: Do we have a hope in Hench?. Journal of Materials Science: Materials in Medicine, 2006, 17, 1029-1035.	1.7	27
42	Hypoxia Inducible Factor-1Î± in Osteochondral Tissue Engineering. Tissue Engineering - Part B: Reviews, 2020, 26, 105-115.	2.5	27
43	A Hydrogel-Integrated Culture Device to Interrogate T Cell Activation with Physicochemical Cues. ACS Applied Materials & Interfaces, 2020, 12, 47355-47367.	4.0	27
44	Three-dimensional niche stiffness synergizes with Wnt7a to modulate the extent of satellite cell symmetric self-renewal divisions. Molecular Biology of the Cell, 2020, 31, 1703-1713.	0.9	26
45	Therapeutic Ion-Releasing Bioactive Glass Ionomer Cements with Improved Mechanical Strength and Radiopacity. Frontiers in Materials, 2015, 2, .	1.2	25
46	Selectively Cross-Linked Tetra-PEG Hydrogels Provide Control over Mechanical Strength with Minimal Impact on Diffusivity. ACS Biomaterials Science and Engineering, 2021, 7, 4293-4304.	2.6	25
47	A comparison of lithium-substituted phosphate and borate bioactive glasses for mineralised tissue repair. Dental Materials, 2019, 35, 919-927.	1.6	23
48	Aortic valve calcification: a bone of contention. European Heart Journal, 2016, 38, ehw071.	1.0	20
49	Gene-expression analysis reveals that embryonic stem cells cultured under osteogenic conditions produce mineral non-specifically compared to marrow stromal cells or osteoblasts. , 2012, 24, 211-223.		16
50	An integrated pipeline for high-throughput screening and profiling of spheroids using simple live image analysis of frame to frame variations. Methods, 2021, 190, 33-43.	1.9	15
51	Wharton's jelly mesenchymal stromal/stem cells derived under chemically defined animal product-free low oxygen conditions are rich in MSCA-1⁺ subpopulation. Regenerative Medicine, 2014, 9, 723-732.	0.8	14
52	GSK3 Inhibitor-Induced Dentinogenesis Using a Hydrogel. Journal of Dental Research, 2022, 101, 46-53.	2.5	11
53	Rethinking Cancer Immunotherapy by Embracing and Engineering Complexity. Trends in Biotechnology, 2020, 38, 1054-1065.	4.9	10
54	Correlative spectroscopy of silicates in mineralised nodules formed from osteoblasts. Nanoscale, 2013, 5, 7544.	2.8	9

#	Article	IF	Citations
55	A modified glass ionomer cement to mediate dentine repair. Dental Materials, 2021, 37, 1307-1315.	1.6	9
56	Matrix-associated chondrocyte transplantation for reconstruction of articulating surfaces in the temporomandibular joint: a pilot study covering medium- and long-term outcomes of 6 patients. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology, 2018, 126, 117-128.	0.2	8
57	Pluripotency state regulates cytoneme selectivity and self-organization of embryonic stem cells. Journal of Cell Biology, 2021, 220, .	2.3	8
58	An engineered, quantifiable in vitro model for analysing the effect of proteostasis-targeting drugs on tissue physical properties. Biomaterials, 2018, 183, 102-113.	5.7	6
59	Design considerations for engineering 3D models to study vascular pathologies in vitro. Acta Biomaterialia, 2021, 132, 114-128.	4.1	5
60	Complementary techniques to analyse pericellular matrix formation by human MSC within hyaluronic acid hydrogels. Materials Advances, 2020, 1, 2888-2896.	2.6	4
61	Local depletion of proteoglycans mediates cartilage tissue repair in an ex vivo integration model. Acta Biomaterialia, 2022, 149, 179-188.	4.1	3
62	Operating Curves to Characterize the Contraction of Fibroblast-Seeded Collagen Gel/Collagen Fiber Composite Biomaterials: Effect of Fiber Mass. Plastic and Reconstructive Surgery, 2007, 119, 508-516.	0.7	2
63	Collagen Composite Biomaterials Resist Contraction While Allowing Development of Adipocytic Soft Tissue In Vitro. Tissue Engineering, 2006, .	4.9	2
64	Inflation comes before the fall: How epithelial stretch drives crypt fission. Cell Stem Cell, 2021, 28, 1505-1506.	5.2	1
65	Conference Scene: Challenges to commercialization. Regenerative Medicine, 2010, 5, 341-343.	0.8	0
66	OP13 Mucosal organoids capture Innate Lymphoid Cells (ILC) tissue-specific development and reveal that Inflammatory Bowel Disease-associated ILC modulate intestinal remodelling. Journal of Crohn's and Colitis, 2021, 15, S013-S014.	0.6	0