Eileen Gentleman

List of Publications by Year in Descending Order

66 papers	3,731 citations	29 h-index	61 g-index
71 ext. papers	4,320 ext. citations	9.2 avg, IF	5.44 L-index

#	Paper	IF	Citations
66	Intrinsic Mechanical Cues and Their Impact on Stem Cells and Embryogenesis. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 761871	5.7	4
65	Measuring the elastic modulus of soft culture surfaces and three-dimensional hydrogels using atomic force microscopy. *Nature Protocols*, **2021**, 16, 2418-2449	18.8	15
64	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	1.5	
63	GSK3 Inhibitor-Induced Dentinogenesis Using a Hydrogel. *Journal of Dental Research*, **2021**, 220345211020652	5.2	2
62	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	5.5	4
61	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	4.6	3
60	ILC1 drive intestinal epithelial and matrix remodelling. *Nature Materials*, **2021**, 20, 250-259	27	23
59	Pluripotency state regulates cytoneme selectivity and self-organization of embryonic stem cells. *Journal of Cell Biology*, **2021**, 220,	7.3	5
58	A modified glass ionomer cement to mediate dentine repair. *Dental Materials*, **2021**, 37, 1307-1315	5.7	2
57	Inflation comes before the fall: How epithelial stretch drives crypt fission. *Cell Stem Cell*, **2021**, 28, 1505-1506	18	
56	Design considerations for engineering 3D models to study vascular pathologies in vitro. *Acta Biomaterialia*, **2021**, 132, 114-128	10.8	2
55	Rethinking Cancer Immunotherapy by Embracing and Engineering Complexity. *Trends in Biotechnology*, **2020**, 38, 1054-1065	15.1	7
54	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	3.5	10
53	Translation Approach for Dentine Regeneration Using GSK-3 Antagonists. *Journal of Dental Research*, **2020**, 99, 544-551	8.1	16
52	Adhesive Hydrogels for Maxillofacial Tissue Regeneration Using Minimally Invasive Procedures. *Advanced Healthcare Materials*, **2020**, 9, e1901134	10.1	10
51	Hypoxia Inducible Factor-1α in Osteochondral Tissue Engineering. *Tissue Engineering - Part B: Reviews*, **2020**, 26, 105-115	7.9	10
50	A Hydrogel-Integrated Culture Device to Interrogate T Cell Activation with Physicochemical Cues. *ACS Applied Materials & Interfaces*, **2020**, 12, 47355-47367	9.5	7

49	Complementary techniques to analyse pericellular matrix formation by human MSC within hyaluronic acid hydrogels. *Materials Advances*, **2020**, 1, 2888-2896	3.3	2
48	Harnessing the secreted extracellular matrix to engineer tissues. *Nature Biomedical Engineering*, **2020**, 4, 357-363	19	30
47	Hypoxia impacts human MSC response to substrate stiffness during chondrogenic differentiation. *Acta Biomaterialia*, **2019**, 89, 73-83	10.8	27
46	Multiscale analyses reveal native-like lamellar bone repair and near perfect bone-contact with porous strontium-loaded bioactive glass. *Biomaterials*, **2019**, 209, 152-162	15.6	29
45	A comparison of lithium-substituted phosphate and borate bioactive glasses for mineralised tissue repair. *Dental Materials*, **2019**, 35, 919-927	5.7	11
44	Exploiting Advanced Hydrogel Technologies to Address Key Challenges in Regenerative Medicine. *Advanced Healthcare Materials*, **2018**, 7, e1700939	10.1	66
43	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	2	5
42	Differential Regulation of Human Bone Marrow Mesenchymal Stromal Cell Chondrogenesis by Hypoxia Inducible Factor-1 Hydroxylase Inhibitors. *Stem Cells*, **2018**, 36, 1380-1392	5.8	38
41	An engineered, quantifiable in vitro model for analysing the effect of proteostasis-targeting drugs on tissue physical properties. *Biomaterials*, **2018**, 183, 102-113	15.6	5
40	Collective Cell Behavior in Mechanosensing of Substrate Thickness. *Biophysical Journal*, **2018**, 114, 2743-2755	2.7	20
39	Bi-directional cell-pericellular matrix interactions direct stem cell fate. *Nature Communications*, **2018**, 9, 4049	17.4	65
38	Neighboring cells override 3D hydrogel matrix cues to drive human MSC quiescence. *Biomaterials*, **2018**, 176, 13-23	15.6	25
37	Monomeric, porous type II collagen scaffolds promote chondrogenic differentiation of human bone marrow mesenchymal stem cells in vitro. *Scientific Reports*, **2017**, 7, 43519	4.9	54
36	Optimisation of lithium-substituted bioactive glasses to tailor cell response for hard tissue repair. *Journal of Materials Science*, **2017**, 52, 8832-8844	4.3	21
35	Aortic valve calcification: a bone of contention. *European Heart Journal*, **2017**, 38, 1189-1193	9.5	13
34	Perivascular Stem Cells at the Tip of Mouse Incisors Regulate Tissue Regeneration. *Journal of Bone and Mineral Research*, **2016**, 31, 514-23	6.3	32
33	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, 4280-5	11.5	52
32	Composition of Mineral Produced by Dental Mesenchymal Stem Cells. *Journal of Dental Research*, **2015**, 94, 1568-74	8.1	29

31	Evolving insights in cell-matrix interactions: elucidating how non-soluble properties of the extracellular niche direct stem cell fate. *Acta Biomaterialia*, **2015**, 11, 3-16	10.8	94
30	Therapeutic Ion-Releasing Bioactive Glass Ionomer Cements with Improved Mechanical Strength and Radiopacity. *Frontiers in Materials*, **2015**, 2,	4	16
29	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	9.8	23
28	The role of material structure and mechanical properties in cell-matrix interactions. *Journal of Materials Chemistry B*, **2014**, 2, 2345-2356	7.3	52
27	The role of surface free energy in osteoblast–biomaterial interactions. *International Materials Reviews*, **2014**, 59, 417-429	16.1	123
26	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, 723-32	2.5	12
25	Surface properties and ion release from fluoride-containing bioactive glasses promote osteoblast differentiation and mineralization in vitro. *Acta Biomaterialia*, **2013**, 9, 5771-9	10.8	75
24	Correlative spectroscopy of silicates in mineralised nodules formed from osteoblasts. *Nanoscale*, **2013**, 5, 7544-51	7.7	9
23	Nano-analytical electron microscopy reveals fundamental insights into human cardiovascular tissue calcification. *Nature Materials*, **2013**, 12, 576-83	27	190
22	Anisotropic fibrous scaffolds for articular cartilage regeneration. *Tissue Engineering - Part A*, **2012**, 18, 2073-83	3.9	117
21	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, 14170-5	11.5	335
20	Characterization of porcine aortic valvular interstitial cell calcified nodules. *PLoS ONE*, **2012**, 7, e48154	3.7	39
19	Gene-expression analysis reveals that embryonic stem cells cultured under osteogenic conditions produce mineral non-specifically compared to marrow stromal cells or osteoblasts. *European Cells and Materials*, **2012**, 24, 211-23	4.3	16
18	Strontium- and zinc-alginate hydrogels for bone tissue engineering. *Tissue Engineering - Part A*, **2011**, 17, 2713-22	3.9	60
17	Benefits and drawbacks of zinc in glass ionomer bone cements. *Biomedical Materials (Bristol)*, **2011**, 6, 045007	3.5	60
16	The effects of strontium-substituted bioactive glasses on osteoblasts and osteoclasts in vitro. *Biomaterials*, **2010**, 31, 3949-56	15.6	458
15	Materials characterisation and cytotoxic assessment of strontium-substituted bioactive glasses for bone regeneration. *Journal of Materials Chemistry*, **2010**, 20, 8934		90
14	Extracellular matrix-mediated osteogenic differentiation of murine embryonic stem cells. *Biomaterials*, **2010**, 31, 3244-52	15.6	78

13	Comparative materials differences revealed in engineered bone as a function of cell-specific differentiation. *Nature Materials*, **2009**, 8, 763-70	27	193
12	Substrate stiffness affects early differentiation events in embryonic stem cells. *European Cells and Materials*, **2009**, 18, 1-13; discussion 13-4	4.3	322
11	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, 508-16	2.7	2
10	Bioactive Glass Scaffolds for Bone Regeneration. *Elements*, **2007**, 3, 393-399	3.8	103
9	Collagen composite biomaterials resist contraction while allowing development of adipocytic soft tissue in vitro. *Tissue Engineering*, **2006**, 12, 1639-49		59
8	Scaffolds for stem cells. *Materials Today*, **2006**, 9, 26-33	21.8	103
7	Historic and current strategies in bone tissue engineering: do we have a hope in Hench?. *Journal of Materials Science: Materials in Medicine*, **2006**, 17, 1029-35	4.5	26
6	Development of ligament-like structural organization and properties in cell-seeded collagen scaffolds in vitro. *Annals of Biomedical Engineering*, **2006**, 34, 726-36	4.7	64
5	Collagen Composite Biomaterials Resist Contraction While Allowing Development of Adipocytic Soft Tissue In Vitro. *Tissue Engineering*, **2006**, 060706073730043		1
4	Short collagen fibers provide control of contraction and permeability in fibroblast-seeded collagen gels. *Tissue Engineering*, **2004**, 10, 421-7		38
3	Mechanical characterization of collagen fibers and scaffolds for tissue engineering. *Biomaterials*, **2003**, 24, 3805-13	15.6	300
2	Collective cell behaviour in mechanosensing of substrate thickness		1
1	ILC1-derived TGF drives intestinal remodelling		1