Felicity R A J Rose

List of Publications by Year
in descending order

100 papers	5,307 citations	94269 37 h-index	88477 70 g-index
108 all docs	108 docs citations	108 times ranked	8131 citing authors

#	Article	IF	Citations
1	Bone Tissue Engineering: Hope vs Hype. Biochemical and Biophysical Research Communications, 2002, 292, 1-7.	1.0	490
2	Cellular adaptations to hypoxia and acidosis during somatic evolution of breast cancer. British Journal of Cancer, 2007, 97, 646-653.	2.9	301
3	Gelatin-Based Materials in Ocular Tissue Engineering. Materials, 2014, 7, 3106-3135.	1.3	248
4	Hydrogels derived from demineralized and decellularized bone extracellular matrix. Acta Biomaterialia, 2013, 9, 7865-7873.	4.1	224
5	The effect of anisotropic architecture on cell and tissue infiltration into tissue engineering scaffolds. Biomaterials, 2006, 27, 5909-5917.	5.7	201
6	Human defensin 5 is stored in precursor form in normal Paneth cells and is expressed by some villous epithelial cells and by metaplastic Paneth cells in the colon in inflammatory bowel disease. Gut, 2001, 48, 176-185.	6.1	193
7	The influence of dispersant concentration on the pore morphology of hydroxyapatite ceramics for bone tissue engineering. Biomaterials, 2005, 26, 697-702.	5.7	162
8	Investigation of cellâ€“surface interactions using chemical gradients formed from plasma polymers. Biomaterials, 2008, 29, 172-184.	5.7	146
9	<scp>IL</scp>â€33 drives airway hyperâ€responsiveness through <scp>IL</scp>â€13â€mediated mast cell: airway smooth muscle crosstalk. Allergy: European Journal of Allergy and Clinical Immunology, 2015, 70, 556-567.	2.7	134
10	In vitro assessment of cell penetration into porous hydroxyapatite scaffolds with a central aligned channel. Biomaterials, 2004, 25, 5507-5514.	5.7	133
11	Prediction of Drug Response in Breast Cancer Using Integrative Experimental/Computational Modeling. Cancer Research, 2009, 69, 4484-4492.	0.4	125
12	Potential Role of Epithelial Cell-Derived Histone H1 Proteins in Innate Antimicrobial Defense in the Human Gastrointestinal Tract. Infection and Immunity, 1998, 66, 3255-3263.	1.0	123
13	Translational considerations in injectable cell-based therapeutics for neurological applications: concepts, progress and challenges. Npj Regenerative Medicine, 2017, 2, 23.	2.5	117
14	Porous Polymer and Cell Composites That Self-Assemble In Situ. Advanced Materials, 2003, 15, 210-213.	11.1	103
15	Cell adhesion and mechanical properties of a flexible scaffold for cardiac tissue engineering. Acta Biomaterialia, 2007, 3, 457-462.	4.1	99
16	A Highâ€Throughput Assay of Cellâ€Surface Interactions using Topographical and Chemical Gradients. Advanced Materials, 2009, 21, 300-304.	11.1	98
17	Delivery systems for bone growth factors â€" the new players in skeletal regeneration. Journal of Pharmacy and Pharmacology, 2010, 56, 415-427.	1.2	97
18	Surface chemistry of Ti6Al4V components fabricated using selective laser melting for biomedical applications. Materials Science and Engineering C, 2016, 67, 294-303.	3.8	88

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19	Controlled release of BMP-2 from a sintered polymer scaffold enhances bone repair in a mouse calvarial defect model. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 59-66.	1.3	86
20	A thermoreversible hydrogel as a biosynthetic bandage for corneal wound repair. Biomaterials, 2008, 29, 272-281.	5.7	83
21	Expression of antimicrobial neutrophil defensins in epithelial cells of active inflammatory bowel disease mucosa. Journal of Clinical Pathology, 2002, 55, 298-304.	1.0	75
22	In Vivo Assessment of Bone Regeneration in Alginate/Bone ECM Hydrogels with Incorporated Skeletal Stem Cells and Single Growth Factors. PLoS ONE, 2015, 10, e0145080.	1.1	67
23	Immunocompetent 3D Model of Human Upper Airway for Disease Modeling and In Vitro Drug Evaluation. Molecular Pharmaceutics, 2014, 11, 2082-2091.	2.3	66
24	PLGA-Based Microparticles for the Sustained Release of BMP-2. Polymers, 2011, 3, 571-586.	2.0	59
25	Effect of Sessile Drop Volume on the Wetting Anisotropy Observed on Grooved Surfaces. Langmuir, 2009, 25, 2567-2571.	1.6	57
26	Evaluation of skeletal tissue repair, Part 1: Assessment of novel growth-factor-releasing hydrogels in an ex vivo chick femur defect model. Acta Biomaterialia, 2014, 10, 4186-4196.	4.1	57
27	Interconnectivity and permeability of supercritical fluid-foamed scaffolds and the effect of their structural properties on cell distribution. Polymer, 2014, 55, 435-444.	1.8	56
28	Evaluation of skeletal tissue repair, Part 2: Enhancement of skeletal tissue repair through dual-growth-factor-releasing hydrogels within an ex vivo chick femur defect model. Acta Biomaterialia, 2014, 10, 4197-4205.	4.1	56
29	Maintenance of pluripotency in human embryonic stem cells cultured on a synthetic substrate in conditioned medium. Biotechnology and Bioengineering, 2010, 105, 130-140.	1.7	53
30	PLGA/PEGâ€hydrogel composite scaffolds with controllable mechanical properties. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 648-655.	1.6	49
31	A novel technique for the production of electrospun scaffolds with tailored three-dimensional micro-patterns employing additive manufacturing. Biofabrication, 2014, 6, 035003.	3.7	48
32	A new photocrosslinkable polycaprolactoneâ€based ink for threeâ€dimensional inkjet printing. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 1645-1657.	1.6	48
33	Recapitulation of Tumor Heterogeneity and Molecular Signatures in a 3D Brain Cancer Model with Decreased Sensitivity to Histone Deacetylase Inhibition. PLoS ONE, 2012, 7, e52335.	1.1	46
34	Mammalian cell survival and processing in supercritical CO2. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7426-7431.	3.3	45
35	Accelerating protein release from microparticles for regenerative medicine applications. Materials Science and Engineering C, 2013, 33, 2578-2583.	3.8	45
36	In Situ Gelling Hydrogels Incorporating Microparticles as Drug Delivery Carriers for Regenerative Medicine. Journal of Pharmaceutical Sciences, 2008, 97, 3972-3980.	1.6	43

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37	A novel electrospun biphasic scaffold provides optimal three-dimensional topography for <i>in vitro</i> co-culture of airway epithelial and fibroblast cells. Biofabrication, 2014, 6, 035014.	3.7	43
38	Zonal release of proteins within tissue engineering scaffolds. Journal of Materials Science: Materials in Medicine, 2006, 17, 1049-1056.	1.7	37
39	Antimicrobial peptides in the gastrointestinal tract.. Gut, 1997, 40, 161-163.	6.1	36
40	Peptide Hydrogelsâ€”A Tissue Engineering Strategy for the Prevention of Oesophageal Strictures. Advanced Functional Materials, 2017, 27, 1702424.	7.8	36
41	Photocrosslinkable Gelatin Hydrogels Modulate the Production of the Major Pro-inflammatory Cytokine, TNF-Î±, by Human Mononuclear Cells. Frontiers in Bioengineering and Biotechnology, 2018, 6, 116.	2.0	36
42	Tissue growth in a rotating bioreactor. Part I: mechanical stability. Mathematical Medicine and Biology, 2006, 23, 311-337.	0.8	33
43	Direct calculation of Maxwell stress tensor for accurate trajectory prediction during DEP for 2D and 3D structures. Journal Physics D: Applied Physics, 2007, 40, 71-77.	1.3	33
44	Enzyme-passage free culture of mouse embryonic stem cells on thermo-responsive polymer surfaces. Journal of Materials Chemistry, 2011, 21, 6883.	6.7	33
45	Growth-induced buckling of an epithelial layer. Biomechanics and Modeling in Mechanobiology, 2011, 10, 883-900.	1.4	33
46	The Effect of a Type I Photoinitiator on Cure Kinetics and Cell Toxicity in Projection-Microstereolithography. Procedia CIRP, 2013, 5, 222-225.	1.0	32
47	Supercritical carbon dioxide foaming of elastomer/heterocyclic methacrylate blends as scaffolds for tissue engineering. Journal of Materials Chemistry, 2005, 15, 4881.	6.7	31
48	Mathematical modelling of human mesenchymal stem cell proliferation and differentiation inside artificial porous scaffolds. Journal of Theoretical Biology, 2007, 249, 543-553.	0.8	31
49	Mathematical modelling of tissue-engineered angiogenesis. Mathematical Biosciences, 2009, 221, 101-120.	0.9	31
50	Analysis of sintered polymer scaffolds using concomitant synchrotron computed tomography and in situ mechanical testing. Journal of Materials Science: Materials in Medicine, 2011, 22, 2599-2605.	1.7	30
51	Chemistry of Polymer and Ceramic-Based Injectable Scaffolds and Their Applications in Regenerative Medicine. Chemistry of Materials, 2012, 24, 781-795.	3.2	28
52	Investigating NF-ÎºB signaling in lung fibroblasts in 2D and 3D culture systems. Respiratory Research, 2015, 16, 144.	1.4	28
53	Feasibility of Spatially Offset Raman Spectroscopy for in Vitro and in Vivo Monitoring Mineralization of Bone Tissue Engineering Scaffolds. Analytical Chemistry, 2017, 89, 847-853.	3.2	28
54	A biomaterials approach to influence stem cell fate in injectable cell-based therapies. Stem Cell Research and Therapy, 2018, 9, 39.	2.4	28

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55	Review of emerging nanotechnology in bone regeneration: progress, challenges, and perspectives. Nanoscale, 2021, 13, 10266-10280.	2.8	28
56	Seeding cells into needled felt scaffolds for tissue engineering applications. Journal of Biomedical Materials Research Part B, 2003, 66A, 425-431.	3.0	27
57	A design of experiments approach to identify the influencing parameters that determine poly-D,L-lactic acid (PDLLA) electrospun scaffold morphologies. Biomedical Materials (Bristol), 2017, 12, 055009.	1.7	27
58	Designing topographically textured microparticles for induction and modulation of osteogenesis in mesenchymal stem cell engineering. Biomaterials, 2021, 266, 120450.	5.7	27
59	Adjuvant Chemotherapy for Brain Tumors Delivered via a Novel Intra-Cavity Moldable Polymer Matrix. PLoS ONE, 2013, 8, e77435.	1.1	25
60	Polymer Microparticles with Defined Surface Chemistry and Topography Mediate the Formation of Stem Cell Aggregates and Cardiomyocyte Function. ACS Applied Materials & Interfaces, 2019, 11, 34560-34574.	4.0	25
61	A supercritical CO2 injection system for the production of polymer/mammalian cell composites. Journal of Supercritical Fluids, 2008, 43, 535-541.	1.6	24
62	A Detailed Assessment of Varying Ejection Rate on Delivery Efficiency of Mesenchymal Stem Cells Using Narrow-Bore Needles. Stem Cells Translational Medicine, 2016, 5, 366-378.	1.6	24
63	Tissue transglutaminase (TG-2) modified amniotic membrane: a novel scaffold for biomedical applications. Biomedical Materials (Bristol), 2012, 7, 045011.	1.7	23
64	Probing Clostridium difficile Infection in Complex Human Gut Cellular Models. Frontiers in Microbiology, 2019, 10, 879.	1.5	22
65	<i>In vitro</i> evaluation of electrospun blends of gelatin and PCL for application as a partial thickness corneal graft. Journal of Biomedical Materials Research - Part A, 2019, 107, 828-838.	2.1	21
66	Human airway smooth muscle maintain in situ cell orientation and phenotype when cultured on aligned electrospun scaffolds. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2014, 307, L38-L47.	1.3	20
67	Discovery of synergistic material-topography combinations to achieve immunomodulatory osteoinductive biomaterials using a novel in vitro screening method: The ChemoTopoChip. Biomaterials, 2021, 271, 120740.	5.7	20
68	Post-processing of polymer foam tissue scaffolds with high power ultrasound: A route to increased pore interconnectivity, pore size and fluid transport. Materials Science and Engineering C, 2013, 33, 4825-4832.	3.8	18
69	Nanofibrous Scaffolds Support a 3D in vitro Permeability Model of the Human Intestinal Epithelium. Frontiers in Pharmacology, 2019, 10, 456.	1.6	18
70	In situ monitoring of 3D in vitro cell aggregation using an optical imaging system. Biotechnology and Bioengineering, 2008, 100, 159-167.	1.7	16
71	Stem cells from the dental apical papilla in extracellular matrix hydrogels mitigate inflammation of microglial cells. Scientific Reports, 2019, 9, 14015.	1.6	16
72	Adapting the Electrospinning Process to Provide Three Unique Environments for a Tri-layered In Vitro Model of the Airway Wall. Journal of Visualized Experiments, 2015, , e52986.	0.2	14

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73	3D Microfabricated Scaffolds and Microfluidic Devices for Ocular Surface Replacement: a Review. Stem Cell Reviews and Reports, 2017, 13, 430-441.	5.6	14
74	Spatially-offset Raman spectroscopy for monitoring mineralization of bone tissue engineering scaffolds: feasibility study based on phantom samples. Biomedical Optics Express, 2019, 10, 1678.	1.5	14
75	Tracking large solid constructs suspended in a rotating bioreactor: A combined experimental and theoretical study. Biotechnology and Bioengineering, 2009, 104, 1224-1234.	1.7	13
76	Investigating the feasibility of spatially offset Raman spectroscopy for inâ€vivo monitoring of bone healing in rat calvarial defect models. Journal of Biophotonics, 2020, 13, e202000190.	1.1	13
77	Individual-based modelling of angiogenesis inside three-dimensional porous biomaterials. BioSystems, 2011, 103, 372-383.	0.9	12
78	Electrospun gelatin-based scaffolds as a novel 3D platform to study the function of contractile smooth muscle cells <i>in vitro</i>. Biomedical Physics and Engineering Express, 2018, 4, 045039.	0.6	12
79	Improved delivery of PLGA microparticles and microparticle-cell scaffolds in clinical needle gauges using modified viscosity formulations. International Journal of Pharmaceutics, 2018, 546, 272-278.	2.6	11
80	A Reactive Prodrug Ink Formulation Strategy for Inkjet 3D Printing of Controlled Release Dosage Forms and Implants. Advanced Therapeutics, 2020, 3, 1900187.	1.6	11
81	A thermoresponsive three-dimensional fibrous cell culture platform for enzyme-free expansion of mammalian cells. Acta Biomaterialia, 2019, 95, 427-438.	4.1	10
82	Bioinspired Precision Engineering of Threeâ€Dimensional Epithelial Stem Cell Microniches. Advanced Biology, 2020, 4, e2000016.	3.0	10
83	Mixed polymer and bioconjugate core/shell electrospun fibres for biphasic protein release. Journal of Materials Chemistry B, 2021, 9, 4120-4133.	2.9	10
84	Preparation of Caco-2 cell sheets using plasma polymerised acrylic acid as a weak boundary layer. Biomaterials, 2010, 31, 6764-6771.	5.7	9
85	Exploiting Generative Design for 3D Printing of Bacterial Biofilm Resistant Composite Devices. Advanced Science, 2021, 8, e2100249.	5.6	7
86	Biocompatibility and enhanced osteogenic differentiation of human mesenchymal stem cells in response to surface engineered poly(<scp>d</scp>,<scp>l</scp>-lactic-<i>co</i>-glycolic acid) microparticles. Journal of Biomedical Materials Research - Part A, 2014, 102, 3872-3882.	2.1	6
87	The electrospinning of a thermo-responsive polymer with peptide conjugates for phenotype support and extracellular matrix production of therapeutically relevant mammalian cells. Biomaterials Science, 2020, 8, 2611-2626.	2.6	6
88	Bespoke 3D-Printed Polydrug Implants Created via Microstructural Control of Oligomers. ACS Applied Materials & Interfaces, 2021, 13, 38969-38978.	4.0	6
89	Application of a maximum likelihood algorithm to ultrasound modulated optical tomography. Journal of Biomedical Optics, 2012, 17, 026014.	1.4	5
90	Tissue Engineering in the Development of Replacement Technologies. Advances in Experimental Medicine and Biology, 2012, 745, 47-57.	0.8	5

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91	Electrospun PLGA fibre sheets incorporating fluorescent nanosensors: self-reporting scaffolds for application in tissue engineering. Analytical Methods, 2013, 5, 68-71.	1.3	5
92	Droplet Microfluidic Optimisation Using Micropipette Characterisation of Bio-Instructive Polymeric Surfactants. Molecules, 2021, 26, 3302.	1.7	4
93	Mineralizing Coating on 3D Printed Scaffolds for the Promotion of Osseointegration. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	4
94	The visualisation of vitreous using surface modified poly(lactic-co-glycolic acid) microparticles. British Journal of Ophthalmology, 2010, 94, 648-653.	2.1	3
95	Characterization of tissue scaffolds using optics and ultrasound. Proceedings of SPIE, 2011, , .	0.8	3
96	Self-reporting Scaffolds for 3-Dimensional Cell Culture. Journal of Visualized Experiments, 2013, , e50608.	0.2	3
97	Growth of the chorioallantoic membrane into a rapid-prototyped model pore system: experiments and mathematical model. Biomechanics and Modeling in Mechanobiology, 2011, 10, 539-558.	1.4	2
98	Application of a maximum likelihood algorithm to ultrasound modulated optical tomography. , 2011, , .		1
99	British Society for Matrix Biology Autumn Meeting â€˜Joint with the UK Tissue & Cell Engineering Society, University of Bristol, UK. International Journal of Experimental Pathology, 2005, 86, A1-A56.	0.6	0
100	Engineering an in-vitro model of rodent cartilage. Journal of Pharmacy and Pharmacology, 2012, 64, 821-831.	1.2	0