Felicity RAJ Rose

List of Publications by Year in descending order

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100 papers 5,307 citations

94269 37 h-index 70 g-index

108 all docs

 $\frac{108}{\text{docs citations}}$

108 times ranked 8131 citing authors

#	Article	IF	Citations
1	Designing topographically textured microparticles for induction and modulation of osteogenesis in mesenchymal stem cell engineering. Biomaterials, 2021, 266, 120450.	5.7	27
2	Review of emerging nanotechnology in bone regeneration: progress, challenges, and perspectives. Nanoscale, 2021, 13, 10266-10280.	2.8	28
3	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
4	Droplet Microfluidic Optimisation Using Micropipette Characterisation of Bio-Instructive Polymeric Surfactants. Molecules, 2021, 26, 3302.	1.7	4
5	Exploiting Generative Design for 3D Printing of Bacterial Biofilm Resistant Composite Devices. Advanced Science, 2021, 8, e2100249.	5 . 6	7
6	Bespoke 3D-Printed Polydrug Implants Created via Microstructural Control of Oligomers. ACS Applied Materials & Samp; Interfaces, 2021, 13, 38969-38978.	4.0	6
7	Mixed polymer and bioconjugate core/shell electrospun fibres for biphasic protein release. Journal of Materials Chemistry B, 2021, 9, 4120-4133.	2.9	10
8	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
9	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
10	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
11	Bioinspired Precision Engineering of Threeâ€Dimensional Epithelial Stem Cell Microniches. Advanced Biology, 2020, 4, e2000016.	3.0	10
12	Stem cells from the dental apical papilla in extracellular matrix hydrogels mitigate inflammation of microglial cells. Scientific Reports, 2019, 9, 14015.	1.6	16
13	A thermoresponsive three-dimensional fibrous cell culture platform for enzyme-free expansion of mammalian cells. Acta Biomaterialia, 2019, 95, 427-438.	4.1	10
14	Polymer Microparticles with Defined Surface Chemistry and Topography Mediate the Formation of Stem Cell Aggregates and Cardiomyocyte Function. ACS Applied Materials & Samp; Interfaces, 2019, 11, 34560-34574.	4.0	25
15	Nanofibrous Scaffolds Support a 3D in vitro Permeability Model of the Human Intestinal Epithelium. Frontiers in Pharmacology, 2019, 10, 456.	1.6	18
16	Probing Clostridium difficile Infection in Complex Human Gut Cellular Models. Frontiers in Microbiology, 2019, 10, 879.	1.5	22
17	<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
18	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

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19	Photocrosslinkable Gelatin Hydrogels Modulate the Production of the Major Pro-inflammatory Cytokine, TNF-α, by Human Mononuclear Cells. Frontiers in Bioengineering and Biotechnology, 2018, 6, 116.	2.0	36
20	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
21	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
22	A biomaterials approach to influence stem cell fate in injectable cell-based therapies. Stem Cell Research and Therapy, 2018, 9, 39.	2.4	28
23	3D Microfabricated Scaffolds and Microfluidic Devices for Ocular Surface Replacement: a Review. Stem Cell Reviews and Reports, 2017, 13, 430-441.	5.6	14
24	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
25	Peptide Hydrogelsâ€"A Tissue Engineering Strategy for the Prevention of Oesophageal Strictures. Advanced Functional Materials, 2017, 27, 1702424.	7.8	36
26	Translational considerations in injectable cell-based therapeutics for neurological applications: concepts, progress and challenges. Npj Regenerative Medicine, 2017, 2, 23.	2.5	117
27	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
28	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
29	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
30	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
31	<scp>IL</scp> â€33 drives airway hyperâ€responsiveness through <scp>IL</scp> â€13â€mediated mast cell: airwa smooth muscle crosstalk. Allergy: European Journal of Allergy and Clinical Immunology, 2015, 70, 556-567.	2.7	134
32	Adapting the Electrospinning Process to Provide Three Unique Environments for a Tri-layered & lt;em>In Vitro Model of the Airway Wall. Journal of Visualized Experiments, 2015, , e52986.	0.2	14
33	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
34	Investigating NF-κB signaling in lung fibroblasts in 2D and 3D culture systems. Respiratory Research, 2015, 16, 144.	1.4	28
35	Gelatin-Based Materials in Ocular Tissue Engineering. Materials, 2014, 7, 3106-3135.	1.3	248
36	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

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37	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
38	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
39	Immunocompetent 3D Model of Human Upper Airway for Disease Modeling and In Vitro Drug Evaluation. Molecular Pharmaceutics, 2014, 11, 2082-2091.	2.3	66
40	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
41	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
42	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
43	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
44	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
45	Hydrogels derived from demineralized and decellularized bone extracellular matrix. Acta Biomaterialia, 2013, 9, 7865-7873.	4.1	224
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	Electrospun PLGA fibre sheets incorporating fluorescent nanosensors: self-reporting scaffolds for application in tissue engineering. Analytical Methods, 2013, 5, 68-71.	1.3	5
48	Accelerating protein release from microparticles for regenerative medicine applications. Materials Science and Engineering C, 2013, 33, 2578-2583.	3.8	45
49	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
50	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
51	Adjuvant Chemotherapy for Brain Tumors Delivered via a Novel Intra-Cavity Moldable Polymer Matrix. PLoS ONE, 2013, 8, e77435.	1.1	25
52	Self-reporting Scaffolds for 3-Dimensional Cell Culture. Journal of Visualized Experiments, 2013, , e50608.	0.2	3
53	Tissue transglutaminase (TG-2) modified amniotic membrane: a novel scaffold for biomedical applications. Biomedical Materials (Bristol), 2012, 7, 045011.	1.7	23
54	Application of a maximum likelihood algorithm to ultrasound modulated optical tomography. Journal of Biomedical Optics, 2012, 17, 026014.	1.4	5

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55	Tissue Engineering in the Development of Replacement Technologies. Advances in Experimental Medicine and Biology, 2012, 745, 47-57.	0.8	5
56	Chemistry of Polymer and Ceramic-Based Injectable Scaffolds and Their Applications in Regenerative Medicine. Chemistry of Materials, 2012, 24, 781-795.	3.2	28
57	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
58	Engineering an in-vitro model of rodent cartilage. Journal of Pharmacy and Pharmacology, 2012, 64, 821-831.	1.2	0
59	Enzyme-passage free culture of mouse embryonic stem cells on thermo-responsive polymer surfaces. Journal of Materials Chemistry, 2011, 21, 6883.	6.7	33
60	Application of a maximum likelihood algorithm to ultrasound modulated optical tomography. , 2011, , .		1
61	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
62	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
63	Growth-induced buckling of an epithelial layer. Biomechanics and Modeling in Mechanobiology, 2011, 10, 883-900.	1.4	33
64	Individual-based modelling of angiogenesis inside three-dimensional porous biomaterials. BioSystems, 2011, 103, 372-383.	0.9	12
65	Characterization of tissue scaffolds using optics and ultrasound. Proceedings of SPIE, 2011, , .	0.8	3
66	PLGA-Based Microparticles for the Sustained Release of BMP-2. Polymers, 2011, 3, 571-586.	2.0	59
67	Delivery systems for bone growth factors — the new players in skeletal regeneration. Journal of Pharmacy and Pharmacology, 2010, 56, 415-427.	1.2	97
68	Preparation of Caco-2 cell sheets using plasma polymerised acrylic acid as a weak boundary layer. Biomaterials, 2010, 31, 6764-6771.	5.7	9
69	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
70	The visualisation of vitreous using surface modified poly(lactic-co-glycolic acid) microparticles. British Journal of Ophthalmology, 2010, 94, 648-653.	2.1	3
71	Prediction of Drug Response in Breast Cancer Using Integrative Experimental/Computational Modeling. Cancer Research, 2009, 69, 4484-4492.	0.4	125
72	A Highâ€Throughput Assay of Cellâ€Surface Interactions using Topographical and Chemical Gradients. Advanced Materials, 2009, 21, 300-304.	11.1	98

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73	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
74	Effect of Sessile Drop Volume on the Wetting Anisotropy Observed on Grooved Surfaces. Langmuir, 2009, 25, 2567-2571.	1.6	57
75	Mathematical modelling of tissue-engineered angiogenesis. Mathematical Biosciences, 2009, 221, 101-120.	0.9	31
76	A thermoreversible hydrogel as a biosynthetic bandage for corneal wound repair. Biomaterials, 2008, 29, 272-281.	5.7	83
77	In Situ Gelling Hydrogels Incorporating Microparticles as Drug Delivery Carriers for Regenerative Medicine. Journal of Pharmaceutical Sciences, 2008, 97, 3972-3980.	1.6	43
78	In situ monitoring of 3D in vitro cell aggregation using an optical imaging system. Biotechnology and Bioengineering, 2008, 100 , $159-167$.	1.7	16
79	Investigation of cell–surface interactions using chemical gradients formed from plasma polymers. Biomaterials, 2008, 29, 172-184.	5.7	146
80	A supercritical CO2 injection system for the production of polymer/mammalian cell composites. Journal of Supercritical Fluids, 2008, 43, 535-541.	1.6	24
81	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
82	Cellular adaptations to hypoxia and acidosis during somatic evolution of breast cancer. British Journal of Cancer, 2007, 97, 646-653.	2.9	301
83	Cell adhesion and mechanical properties of a flexible scaffold for cardiac tissue engineering. Acta Biomaterialia, 2007, 3, 457-462.	4.1	99
84	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
85	The effect of anisotropic architecture on cell and tissue infiltration into tissue engineering scaffolds. Biomaterials, 2006, 27, 5909-5917.	5.7	201
86	Zonal release of proteins within tissue engineering scaffolds. Journal of Materials Science: Materials in Medicine, 2006, 17, 1049-1056.	1.7	37
87	Tissue growth in a rotating bioreactor. Part I: mechanical stability. Mathematical Medicine and Biology, 2006, 23, 311-337.	0.8	33
88	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
89	The influence of dispersant concentration on the pore morphology of hydroxyapatite ceramics for bone tissue engineering. Biomaterials, 2005, 26, 697-702.	5.7	162
90	British Society for Matrix Biology Autumn Meeting †Joint with the UK Tissue & Cell Engineering Society, University of Bristol, UK. International Journal of Experimental Pathology, 2005, 86, A1-A56.	0.6	0

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91	Supercritical carbon dioxide foaming of elastomer/heterocyclic methacrylate blends as scaffolds for tissue engineering. Journal of Materials Chemistry, 2005, 15, 4881.	6.7	31
92	In vitro assessment of cell penetration into porous hydroxyapatite scaffolds with a central aligned channel. Biomaterials, 2004, 25, 5507-5514.	5.7	133
93	Seeding cells into needled felt scaffolds for tissue engineering applications. Journal of Biomedical Materials Research Part B, 2003, 66A, 425-431.	3.0	27
94	Porous Polymer and Cell Composites That Self-Assemble In Situ. Advanced Materials, 2003, 15, 210-213.	11.1	103
95	Bone Tissue Engineering: Hope vs Hype. Biochemical and Biophysical Research Communications, 2002, 292, 1-7.	1.0	490
96	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
97	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
98	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
99	Antimicrobial peptides in the gastrointestinal tract Gut, 1997, 40, 161-163.	6.1	36
100	Mineralizing Coating on 3D Printed Scaffolds for the Promotion of Osseointegration. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	4