Alison P Mcguigan

List of Publications by Year in Descending Order

60 papers	1,828 citations	21 h-index	42 g-index
66 ext. papers	2,229 ext. citations	8.9 avg, IF	5.03 L-index

#	Paper	IF	Citations
60	Tryptophan-derived microbial metabolites activate the aryl hydrocarbon receptor in tumor-associated macrophages to suppress anti-tumor immunity.. *Immunity*, **2022**, 55, 324-340.e8	32.3	14
59	MEndR: An In Vitro Functional Assay to Predict In Vivo Muscle Stem Cell-Mediated Repair. *Advanced Functional Materials*, **2022**, 32, 2106548	15.6	2
58	Biomimetic hydrogel supports initiation and growth of patient-derived breast tumor organoids.. *Nature Communications*, **2022**, 13, 1466	17.4	6
57	3D microgels to quantify tumor cell properties and therapy response dynamics.. *Biomaterials*, **2022**, 283, 121417	15.6	0
56	REVOLVER: A low-cost automated protein purifier based on parallel preparative gravity column workflows.. *HardwareX*, **2022**, 11, e00291	2.7	
55	Microfluidic Arrays of Breast Tumor Spheroids for Drug Screening and Personalized Cancer Therapies. *Advanced Healthcare Materials*, **2021**, e2101085	10.1	5
54	Applications of Omics Technologies for Three-Dimensional Disease Models. *Tissue Engineering - Part C: Methods*, **2021**, 27, 183-199	2.9	2
53	Gelatin-Hyaluronan Click-Crosslinked Cryogels Elucidate Human Macrophage Invasion Behavior. *Advanced Functional Materials*, **2021**, 31, 2008400	15.6	5
52	Matrix Stiffness-Regulated Growth of Breast Tumor Spheroids and Their Response to Chemotherapy. *Biomacromolecules*, **2021**, 22, 419-429	6.9	15
51	Easy and robust micropatterning using fibrinogen anchors. *Journal of Cell Biology*, **2021**, 220,	7.3	1
50	Application of CRISPR screens to investigate mammalian cell competition. *Briefings in Functional Genomics*, **2021**, 20, 135-147	4.9	
49	An Engineered Patient-Derived Tumor Organoid Model That Can Be Disassembled to Study Cellular Responses in a Graded 3D Microenvironment. *Advanced Functional Materials*, **2021**, 31, 2105349	15.6	4
48	Assembly of lung progenitors into developmentally-inspired geometry drives differentiation via cellular tension. *Biomaterials*, **2020**, 254, 120128	15.6	7
47	The life cycle of cancer-associated fibroblasts within the tumour stroma and its importance in disease outcome. *British Journal of Cancer*, **2020**, 122, 931-942	8.7	29
46	A TRACER culture invasion assay to probe the impact of cancer associated fibroblasts on head and neck squamous cell carcinoma cell invasiveness. *Biomaterials Science*, **2020**, 8, 3078-3094	7.4	7
45	Current strategies and opportunities to manufacture cells for modeling human lungs. *Advanced Drug Delivery Reviews*, **2020**, 161-162, 90-109	18.5	3
44	Tissue-engineered 3D cancer microenvironment for screening therapeutics **2020**, 453-479		1

43	Gels for Live Analysis of Compartmentalized Environments (GLAnCE): A tissue model to probe tumour phenotypes at tumour-stroma interfaces. *Biomaterials*, **2020**, 228, 119572	15.6	6
42	Local cell coordination does not alter individual cell migration during collective migration but does impact cellular exchange events. *Integrative Biology (United Kingdom)*, **2019**, 11, 163-172	3.7	2
41	Development of a bioprinting approach for automated manufacturing of multi-cell type biocomposite TRACER strips using contact capillary-wicking. *Biofabrication*, **2019**, 12, 015001	10.5	3
40	A TRACER 3D Co-Culture tumour model for head and neck cancer. *Biomaterials*, **2018**, 164, 54-69	15.6	36
39	The Current Landscape of 3D In Vitro Tumor Models: What Cancer Hallmarks Are Accessible for Drug Discovery?. *Advanced Healthcare Materials*, **2018**, 7, e1701174	10.1	50
38	Design of biomimetic substrates for long-term maintenance of alveolar epithelial cells. *Biomaterials Science*, **2018**, 6, 292-303	7.4	10
37	A three-dimensional engineered heterogeneous tumor model for assessing cellular environment and response. *Nature Protocols*, **2018**, 13, 1917-1957	18.8	19
36	Rapid determination of the tumour stroma ratio in squamous cell carcinomas with desorption electrospray ionization mass spectrometry (DESI-MS): a proof-of-concept demonstration. *Analyst, The*, **2017**, 142, 3250-3260	5	8
35	Modulation of cellular polarization and migration by ephrin/Eph signal-mediated boundary formation. *Integrative Biology (United Kingdom)*, **2017**, 9, 934-946	3.7	1
34	Diabetic wound regeneration using peptide-modified hydrogels to target re-epithelialization. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E5792-E5801	11.5	77
33	Tissue Patterning: Translating Design Principles from In Vivo to In Vitro. *Annual Review of Biomedical Engineering*, **2016**, 18, 1-24	12	9
32	A three-dimensional engineered tumour for spatial snapshot analysis of cell metabolism and phenotype in hypoxic gradients. *Nature Materials*, **2016**, 15, 227-34	27	89
31	Patterning cellular compartments within TRACER cultures using sacrificial gelatin printing. *Biofabrication*, **2016**, 8, 035018	10.5	9
30	Development of TRACER: tissue roll for analysis of cellular environment and response. *Biofabrication*, **2016**, 8, 045008	10.5	20
29	Topographically grooved gel inserts for aligning epithelial cells during air-liquid-interface culture. *Biomaterials Science*, **2015**, 3, 121-33	7.4	11
28	Micropatterning strategies to engineer controlled cell and tissue architecture in vitro. *BioTechniques*, **2015**, 58, 13-23	2.5	46
27	An in vitro model of tissue boundary formation for dissecting the contribution of different boundary forming mechanisms. *Integrative Biology (United Kingdom)*, **2015**, 7, 298-312	3.7	8
26	Nonautonomous contact guidance signaling during collective cell migration. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 1807-12	11.5	60

25	A microfluidic device to apply shear stresses to polarizing ciliated airway epithelium using air flow. *Biomicrofluidics*, **2014**, 8, 064104	3.2	14
24	Micropatterning cells on permeable membrane filters. *Methods in Cell Biology*, **2014**, 121, 171-89	1.8	4
23	Multiwell plate tools for controlling cellular alignment with grooved topography. *Methods in Molecular Biology*, **2014**, 1202, 37-55	1.4	
22	Challenges and opportunities for tissue-engineering polarized epithelium. *Tissue Engineering - Part B: Reviews*, **2014**, 20, 56-72	7.9	18
21	A microgroove patterned multiwell cell culture plate for high-throughput studies of cell alignment. *Biotechnology and Bioengineering*, **2014**, 111, 2537-48	4.9	21
20	Design principles for generating robust gene expression patterns in dynamic engineered tissues. *Integrative Biology (United Kingdom)*, **2013**, 5, 578-89	3.7	11
19	An algorithm to quantify correlated collective cell migration behavior. *BioTechniques*, **2013**, 54, 87-92	2.5	6
18	A simple and rapid method for generating patterned co-cultures with stable interfaces. *BioTechniques*, **2013**, 55, 21-6	2.5	11
17	Ensemble modeling of cancer metabolism. *Frontiers in Physiology*, **2012**, 3, 135	4.6	27
16	Designing in vitro tools to pattern gene expression using inducible gene expression. *FASEB Journal*, **2012**, 26, 454.1	0.9	
15	Tools for micropatterning epithelial cells into microcolonies on transwell filter substrates. *Lab on A Chip*, **2011**, 11, 3440-8	7.2	12
14	A fast and accessible methodology for micro-patterning cells on standard culture substrates using Parafilm inserts. *PLoS ONE*, **2011**, 6, e20909	3.7	45
13	Lifespan-on-a-chip: microfluidic chambers for performing lifelong observation of C. elegans. *Lab on A Chip*, **2010**, 10, 589-97	7.2	170
12	Fabrication of a modular tissue construct in a microfluidic chip. *Lab on A Chip*, **2008**, 8, 663-71	7.2	98
11	Cell encapsulation in sub-mm sized gel modules using replica molding. *PLoS ONE*, **2008**, 3, e2258	3.7	67
10	The thrombogenicity of human umbilical vein endothelial cell seeded collagen modules. *Biomaterials*, **2008**, 29, 2453-63	15.6	49
9	Tissue factor and thrombomodulin expression on endothelial cell-seeded collagen modules for tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2007**, 80, 497-504	5.4	18
8	The influence of biomaterials on endothelial cell thrombogenicity. *Biomaterials*, **2007**, 28, 2547-71	15.6	191

7	Modular tissue engineering: fabrication of a gelatin-based construct. *Journal of Tissue Engineering and Regenerative Medicine*, **2007**, 1, 136-45	4.4	36
6	Design criteria for a modular tissue-engineered construct. *Tissue Engineering*, **2007**, 13, 1079-89		25
5	Design and fabrication of sub-mm-sized modules containing encapsulated cells for modular tissue engineering. *Tissue Engineering*, **2007**, 13, 1069-78		42
4	Vascularized organoid engineered by modular assembly enables blood perfusion. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 11461-6	11.5	313
3	Fabrication of cell-containing gel modules to assemble modular tissue-engineered constructs [corrected]. *Nature Protocols*, **2006**, 1, 2963-9	18.8	54
2	Vascularized Organoid Engineered by Modular Assembly Enables Blood Perfusion. *FASEB Journal*, **2006**, 20, A436	0.9	1
1	Collagen/poloxamine hydrogels: cytocompatibility of embedded HepG2 cells and surface-attached endothelial cells. *Tissue Engineering*, **2005**, 11, 1807-16		27