

Alison P Mcguigan

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

2,574
citations

236925

25
h-index

197818

49
g-index

66
all docs

66
docs citations

66
times ranked

3316
citing authors

#	ARTICLE	IF	CITATIONS
1	Vascularized organoid engineered by modular assembly enables blood perfusion. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11461-11466.	7.1	342
2	Lifespan-on-a-chip: microfluidic chambers for performing lifelong observation of <i>C. elegans</i> . Lab on A Chip, 2010, 10, 589-597.	6.0	219
3	The influence of biomaterials on endothelial cell thrombogenicity. Biomaterials, 2007, 28, 2547-2571.	11.4	211
4	Tryptophan-derived microbial metabolites activate the aryl hydrocarbon receptor in tumor-associated macrophages to suppress anti-tumor immunity. Immunity, 2022, 55, 324-340.e8.	14.3	179
5	A three-dimensional engineered tumour for spatial snapshot analysis of cell metabolism and phenotype in hypoxic gradients. Nature Materials, 2016, 15, 227-234.	27.5	113
6	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.	7.1	108
7	Fabrication of a modular tissue construct in a microfluidic chip. Lab on A Chip, 2008, 8, 663.	6.0	107
8	Cell Encapsulation in Sub-mm Sized Gel Modules Using Replica Molding. PLoS ONE, 2008, 3, e2258.	2.5	77
9	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.	6.4	74
10	Nonautonomous contact guidance signaling during collective cell migration. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1807-1812.	7.1	70
11	Micropatterning strategies to engineer controlled cell and tissue architecture in vitro. BioTechniques, 2015, 58, 13-23.	1.8	70
12	The Current Landscape of 3D In Vitro Tumor Models: What Cancer Hallmarks Are Accessible for Drug Discovery?. Advanced Healthcare Materials, 2018, 7, 1701174.	7.6	66
13	Fabrication of cells containing gel modules to assemble modular tissue-engineered constructs. Nature Protocols, 2006, 1, 2963-2969.	12.0	58
14	A TRACER 3D Co-Culture tumour model for head and neck cancer. Biomaterials, 2018, 164, 54-69.	11.4	53
15	The thrombogenicity of human umbilical vein endothelial cell seeded collagen modules. Biomaterials, 2008, 29, 2453-2463.	11.4	52
16	A Fast and Accessible Methodology for Micro-Patterning Cells on Standard Culture Substrates Using Parafilm [®] , [®] Inserts. PLoS ONE, 2011, 6, e20909.	2.5	52
17	Microfluidic Arrays of Breast Tumor Spheroids for Drug Screening and Personalized Cancer Therapies. Advanced Healthcare Materials, 2022, 11, e2101085.	7.6	48
18	Biomimetic hydrogel supports initiation and growth of patient-derived breast tumor organoids. Nature Communications, 2022, 13, 1466.	12.8	48

#	ARTICLE	IF	CITATIONS
19	Design and Fabrication of Sub-mm-Sized Modules Containing Encapsulated Cells for Modular Tissue Engineering. <i>Tissue Engineering</i> , 2007, 13, 1069-1078.	4.6	44
20	Modular tissue engineering: fabrication of a gelatin-based construct. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2007, 1, 136-145.	2.7	38
21	Matrix Stiffness-Regulated Growth of Breast Tumor Spheroids and Their Response to Chemotherapy. <i>Biomacromolecules</i> , 2021, 22, 419-429.	5.4	36
22	Collagen/Poloxamine Hydrogels: Cytocompatibility of Embedded HepG2 Cells and Surface-Attached Endothelial Cells. <i>Tissue Engineering</i> , 2005, 11, 1807-1816.	4.6	31
23	A three-dimensional engineered heterogeneous tumor model for assessing cellular environment and response. <i>Nature Protocols</i> , 2018, 13, 1917-1957.	12.0	31
24	Assembly of lung progenitors into developmentally-inspired geometry drives differentiation via cellular tension. <i>Biomaterials</i> , 2020, 254, 120128.	11.4	31
25	Ensemble Modeling of Cancer Metabolism. <i>Frontiers in Physiology</i> , 2012, 3, 135.	2.8	30
26	Development of TRACER: tissue roll for analysis of cellular environment and response. <i>Biofabrication</i> , 2016, 8, 045008.	7.1	26
27	Design Criteria for a Modular Tissue-Engineered Construct. <i>Tissue Engineering</i> , 2007, 13, 1079-1089.	4.6	25
28	A microgroove patterned multiwell cell culture plate for high-throughput studies of cell alignment. <i>Biotechnology and Bioengineering</i> , 2014, 111, 2537-2548.	3.3	24
29	A TRACER culture invasion assay to probe the impact of cancer associated fibroblasts on head and neck squamous cell carcinoma cell invasiveness. <i>Biomaterials Science</i> , 2020, 8, 3078-3094.	5.4	24
30	A microfluidic device to apply shear stresses to polarizing ciliated airway epithelium using air flow. <i>Biomicrofluidics</i> , 2014, 8, 064104.	2.4	23
31	Challenges and Opportunities for Tissue-Engineering Polarized Epithelium. <i>Tissue Engineering - Part B: Reviews</i> , 2014, 20, 56-72.	4.8	22
32	Tissue factor and thrombomodulin expression on endothelial cell-seeded collagen modules for tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 80A, 497-504.	4.0	20
33	Topographically grooved gel inserts for aligning epithelial cells during air-liquid-interface culture. <i>Biomaterials Science</i> , 2015, 3, 121-133.	5.4	16
34	An Engineered Patient-Derived Tumor Organoid Model That Can Be Disassembled to Study Cellular Responses in a Graded 3D Microenvironment. <i>Advanced Functional Materials</i> , 2021, 31, 2105349.	14.9	15
35	MEndR: An In Vitro Functional Assay to Predict In Vivo Muscle Stem Cell-Mediated Repair. <i>Advanced Functional Materials</i> , 2022, 32, 2106548.	14.9	15
36	Tools for micropatterning epithelial cells into microcolonies on transwell filter substrates. <i>Lab on A Chip</i> , 2011, 11, 3440.	6.0	14

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37	Patterning cellular compartments within TRACER cultures using sacrificial gelatin printing. <i>Biofabrication</i> , 2016, 8, 035018.	7.1	13
38	Tissue Patterning: Translating Design Principles from In Vivo to In Vitro. <i>Annual Review of Biomedical Engineering</i> , 2016, 18, 1-24.	12.3	13
39	Design of biomimetic substrates for long-term maintenance of alveolar epithelial cells. <i>Biomaterials Science</i> , 2018, 6, 292-303.	5.4	13
40	Design principles for generating robust gene expression patterns in dynamic engineered tissues. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 578-589.	1.3	12
41	Gels for Live Analysis of Compartmentalized Environments (GLAnCE): A tissue model to probe tumour phenotypes at tumour-stroma interfaces. <i>Biomaterials</i> , 2020, 228, 119572.	11.4	12
42	A simple and rapid method for generating patterned co-cultures with stable interfaces. <i>BioTechniques</i> , 2013, 55, 21-6.	1.8	11
43	An in vitro model of tissue boundary formation for dissecting the contribution of different boundary forming mechanisms. <i>Integrative Biology (United Kingdom)</i> , 2015, 7, 298-312.	1.3	11
44	Rapid determination of the tumour stroma ratio in squamous cell carcinomas with desorption electrospray ionization mass spectrometry (DESI-MS): a proof-of-concept demonstration. <i>Analyst, The</i> , 2017, 142, 3250-3260.	3.5	11
45	3D microgels to quantify tumor cell properties and therapy response dynamics. <i>Biomaterials</i> , 2022, 283, 121417.	11.4	11
46	Gelatinâ€Hyaluronan Clickâ€Crosslinked Cryogels Elucidate Human Macrophage Invasion Behavior. <i>Advanced Functional Materials</i> , 2021, 31, 2008400.	14.9	10
47	Development of a bioprinting approach for automated manufacturing of multi-cell type biocomposite TRACER strips using contact capillary-wicking. <i>Biofabrication</i> , 2020, 12, 015001.	7.1	9
48	An algorithm to quantify correlated collective cell migration behavior. <i>BioTechniques</i> , 2013, 54, 87-92.	1.8	7
49	Micropatterning Cells on Permeable Membrane Filters. <i>Methods in Cell Biology</i> , 2014, 121, 171-189.	1.1	6
50	Current strategies and opportunities to manufacture cells for modeling human lungs. <i>Advanced Drug Delivery Reviews</i> , 2020, 161-162, 90-109.	13.7	5
51	Applications of Omics Technologies for Three-Dimensional <i>In Vitro</i> Disease Models. <i>Tissue Engineering - Part C: Methods</i> , 2021, 27, 183-199.	2.1	4
52	Modulation of cellular polarization and migration by ephrin/Eph signal-mediated boundary formation. <i>Integrative Biology (United Kingdom)</i> , 2017, 9, 934-946.	1.3	2
53	Local cell coordination does not alter individual cell migration during collective migration but does impact cellular exchange events. <i>Integrative Biology (United Kingdom)</i> , 2019, 11, 163-172.	1.3	2
54	Tissue-engineered 3D cancer microenvironment for screening therapeutics. , 2020, , 453-479.		2

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55	Guided Self-Assembly of ES-Derived Lung Progenitors into Biomimetic Tube Structures That Impact Cell Differentiation. <i>Bioengineering</i> , 2021, 8, 209.	3.5	2
56	Easy and robust micropatterning using fibrinogen anchors. <i>Journal of Cell Biology</i> , 2021, 220, .	5.2	1
57	Application of CRISPR screens to investigate mammalian cell competition. <i>Briefings in Functional Genomics</i> , 2021, 20, 135-147.	2.7	1
58	Vascularized Organoid Engineered by Modular Assembly Enables Blood Perfusion. <i>FASEB Journal</i> , 2006, 20, A436.	0.5	1
59	Planar organization of airway epithelial cell morphology using hydrogel grooves during ciliogenesis fails to induce ciliary alignment. <i>Biomaterials Science</i> , 2022, 10, 396-409.	5.4	1
60	Multiwell Plate Tools for Controlling Cellular Alignment with Grooved Topography. <i>Methods in Molecular Biology</i> , 2014, 1202, 37-55.	0.9	0
61	Designing in vitro tools to pattern gene expression using inducible gene expression. <i>FASEB Journal</i> , 2012, 26, 454.1.	0.5	0
62	REVOLVER: A low-cost automated protein purifier based on parallel preparative gravity column workflows. <i>HardwareX</i> , 2022, 11, e00291.	2.2	0