

Sheila Macneil

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129
papers

6,053
citations

44
h-index

74
g-index

132
ext. papers

6,743
ext. citations

5.6
avg, IF

6.11
L-index

#	Paper	IF	Citations
129	Progress and opportunities for tissue-engineered skin. <i>Nature</i> , 2007 , 445, 874-80	50.4	797
128	Simple limbal epithelial transplantation (SLET): a novel surgical technique for the treatment of unilateral limbal stem cell deficiency. <i>British Journal of Ophthalmology</i> , 2012 , 96, 931-4	5.5	245
127	Development of a UV crosslinked biodegradable hydrogel containing adipose derived stem cells to promote vascularization for skin wounds and tissue engineering. <i>Biomaterials</i> , 2017 , 129, 188-198	15.6	217
126	Culture of skin cells in 3D rather than 2D improves their ability to survive exposure to cytotoxic agents. <i>Journal of Biotechnology</i> , 2006 , 122, 372-81	3.7	200
125	Development of biodegradable electrospun scaffolds for dermal replacement. <i>Biomaterials</i> , 2008 , 29, 3091-104	15.6	191
124	Tissue-engineered buccal mucosa urethroplasty-clinical outcomes. <i>European Urology</i> , 2008 , 53, 1263-9	10.2	165
123	Biomaterials for tissue engineering of skin. <i>Materials Today</i> , 2008 , 11, 26-35	21.8	163
122	Non-cytotoxic polymer vesicles for rapid and efficient intracellular delivery. <i>Faraday Discussions</i> , 2008 , 139, 143-59; discussion 213-28, 419-20	3.6	148
121	Biocompatible wound dressings based on chemically degradable triblock copolymer hydrogels. <i>Biomacromolecules</i> , 2008 , 9, 2265-75	6.9	121
120	The mechanism of skin graft contraction: an update on current research and potential future therapies. <i>Burns</i> , 2008 , 34, 153-63	2.3	119
119	Self-organization of skin cells in three-dimensional electrospun polystyrene scaffolds. <i>Tissue Engineering</i> , 2005 , 11, 1023-33		117
118	Consensus Statement of the European Urology Association and the European Urogynaecological Association on the Use of Implanted Materials for Treating Pelvic Organ Prolapse and Stress Urinary Incontinence. <i>European Urology</i> , 2017 , 72, 424-431	10.2	114
117	Polymersome-mediated delivery of combination anticancer therapy to head and neck cancer cells: 2D and 3D in vitro evaluation. <i>Molecular Pharmaceutics</i> , 2014 , 11, 1176-88	5.6	105
116	Attachment of human keratinocytes to plasma co-polymers of acrylic acid/octa-1,7-diene and allyl amine/octa-1,7-diene. <i>Journal of Materials Chemistry</i> , 1998 , 8, 37-42		101
115	Transdermal drug delivery: from micro to nano. <i>Nanoscale</i> , 2012 , 4, 1881-94	7.7	93
114	Development of a 3D cell culture system for investigating cell interactions with electrospun fibers. <i>Biotechnology and Bioengineering</i> , 2007 , 97, 1318-28	4.9	87
113	Production and performance of biomaterials containing RGD peptides. <i>Soft Matter</i> , 2008 , 4, 2331	3.6	83

112	Photoluminescent and superparamagnetic reduced graphene oxide/iron oxide quantum dots for dual-modality imaging, drug delivery and photothermal therapy. <i>Carbon</i> , 2016 , 97, 54-70	10.4	79
111	Clinical experience using cultured epithelial autografts leads to an alternative methodology for transferring skin cells from the laboratory to the patient. <i>Regenerative Medicine</i> , 2006 , 1, 809-21	2.5	76
110	Development of an Ibuprofen-releasing biodegradable PLA/PGA electrospun scaffold for tissue regeneration. <i>Biotechnology and Bioengineering</i> , 2010 , 105, 396-408	4.9	75
109	The effect of adipose tissue derived MSCs delivered by a chemically defined carrier on full-thickness cutaneous wound healing. <i>Biomaterials</i> , 2013 , 34, 2501-15	15.6	73
108	Enhanced drug delivery to melanoma cells using PMPC-PDPA polymersomes. <i>Cancer Letters</i> , 2013 , 334, 328-37	9.9	71
107	Combined microfabrication and electrospinning to produce 3-D architectures for corneal repair. <i>Acta Biomaterialia</i> , 2013 , 9, 5511-20	10.8	70
106	1 alpha,25(OH) ₂ vitamin D ₃ increases intracellular calcium in human keratinocytes. <i>British Journal of Dermatology</i> , 1991 , 124, 230-5	4	70
105	Enhanced fluorescence imaging of live cells by effective cytosolic delivery of probes. <i>PLoS ONE</i> , 2010 , 5, e10459	3.7	70
104	Randomized, controlled, single-blind study on use of autologous keratinocytes on a transfer dressing to treat nonhealing diabetic ulcers. <i>Regenerative Medicine</i> , 2007 , 2, 887-902	2.5	64
103	Developments in xenobiotic-free culture of human keratinocytes for clinical use. <i>Wound Repair and Regeneration</i> , 2004 , 12, 626-34	3.6	64
102	Development of a surface-modified contact lens for the transfer of cultured limbal epithelial cells to the cornea for ocular surface diseases. <i>Tissue Engineering - Part A</i> , 2009 , 15, 2889-902	3.9	63
101	Fibroblasts play a regulatory role in the control of pigmentation in reconstructed human skin from skin types I and II. <i>Pigment Cell & Melanoma Research</i> , 2002 , 15, 49-56		61
100	Diffusion studies of nanometer polymersomes across tissue engineered human oral mucosa. <i>Pharmaceutical Research</i> , 2009 , 26, 1718-28	4.5	60
99	Preparation and aqueous solution properties of thermoresponsive biocompatible AB diblock copolymers. <i>Biomacromolecules</i> , 2009 , 10, 1875-87	6.9	58
98	The development of a 3D immunocompetent model of human skin. <i>Biofabrication</i> , 2013 , 5, 035011	10.5	57
97	Plasma Copolymerization of Allyl Alcohol/1,7-Octadiene: Surface Characterization and Attachment of Human Keratinocytes. <i>Chemistry of Materials</i> , 1998 , 10, 1176-1183	9.6	57
96	Comparison of candidate scaffolds for tissue engineering for stress urinary incontinence and pelvic organ prolapse repair. <i>BJU International</i> , 2013 , 112, 674-85	5.6	56
95	Simplifying corneal surface regeneration using a biodegradable synthetic membrane and limbal tissue explants. <i>Biomaterials</i> , 2013 , 34, 5088-106	15.6	56

94	A comparison of imaging methodologies for 3D tissue engineering. <i>Microscopy Research and Technique</i> , 2010 , 73, 1123-33	2.8	55
93	Developing biodegradable scaffolds for tissue engineering of the urethra. <i>BJU International</i> , 2011 , 107, 296-302	5.6	54
92	Using poly(lactide-co-glycolide) electrospun scaffolds to deliver cultured epithelial cells to the cornea. <i>Regenerative Medicine</i> , 2010 , 5, 395-401	2.5	54
91	Developing a tissue engineered repair material for treatment of stress urinary incontinence and pelvic organ prolapse-which cell source?. <i>Neurourology and Urodynamics</i> , 2014 , 33, 531-7	2.3	53
90	Use of human fibroblasts in the development of a xenobiotic-free culture and delivery system for human keratinocytes. <i>Tissue Engineering</i> , 2006 , 12, 245-55		48
89	Use of an in vitro model of tissue-engineered skin to investigate the mechanism of skin graft contraction. <i>Tissue Engineering</i> , 2006 , 12, 3119-33		48
88	Biodegradable and conductive chitosan/graphene quantum dot nanocomposite microneedles for delivery of both small and large molecular weight therapeutics. <i>RSC Advances</i> , 2015 , 5, 51934-51946	3.7	46
87	Internalization and biodistribution of polymersomes into oral squamous cell carcinoma cells in vitro and in vivo. <i>Nanomedicine</i> , 2010 , 5, 1025-36	5.6	46
86	An integrated systems biology approach to understanding the rules of keratinocyte colony formation. <i>Journal of the Royal Society Interface</i> , 2007 , 4, 1077-92	4.1	44
85	Use of peracetic acid to sterilize human donor skin for production of acellular dermal matrices for clinical use. <i>Wound Repair and Regeneration</i> , 2004 , 12, 276-87	3.6	44
84	Epithelialization of hydrogels achieved by amine functionalization and co-culture with stromal cells. <i>Biomaterials</i> , 2007 , 28, 5319-31	15.6	42
83	Development of bilayer and trilayer nanofibrous/microfibrous scaffolds for regenerative medicine. <i>Biomaterials Science</i> , 2013 , 1, 942-951	7.4	36
82	Production of chitosan PVA PCL hydrogels to bind heparin and induce angiogenesis. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016 , 65, 466-476	3	34
81	Development of three-dimensional tissue-engineered models of bacterial infected human skin wounds. <i>Tissue Engineering - Part C: Methods</i> , 2009 , 15, 475-84	2.9	34
80	Development of a closed bioreactor system for culture of tissue-engineered skin at an air-liquid interface. <i>Tissue Engineering</i> , 2005 , 11, 1824-31		34
79	Calcium/calmodulin regulation of the proliferation of human epidermal keratinocytes, dermal fibroblasts and mouse B16 melanoma cells in culture. <i>British Journal of Dermatology</i> , 1988 , 119, 295-306 ⁴		33
78	Production of tissue-engineered skin and oral mucosa for clinical and experimental use. <i>Methods in Molecular Biology</i> , 2011 , 695, 129-53	1.4	31
77	Using Chick Chorioallantoic Membrane (CAM) Assay To Evaluate the Biocompatibility and Angiogenic Response to Biomaterials. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 3190-3200	5.5	30

76	Demonstration of improved tissue integration and angiogenesis with an elastic, estradiol releasing polyurethane material designed for use in pelvic floor repair. <i>Neurourology and Urodynamics</i> , 2018 , 37, 716-725	2.3	29
75	Long-term follow-up after tissue-engineered buccal mucosa urethroplasty. <i>European Urology</i> , 2014 , 66, 790-1	10.2	29
74	A chemically defined carrier for the delivery of human mesenchymal stem/stromal cells to skin wounds. <i>Tissue Engineering - Part C: Methods</i> , 2012 , 18, 143-55	2.9	28
73	alpha-MSH and melanogenesis in normal human adult melanocytes. <i>Pigment Cell & Melanoma Research</i> , 1998 , 11, 45-56		28
72	Oestradiol-releasing Biodegradable Mesh Stimulates Collagen Production and Angiogenesis: An Approach to Improving Biomaterial Integration in Pelvic Floor Repair. <i>European Urology Focus</i> , 2019 , 5, 280-289	5.1	28
71	Development of a one-step approach for the reconstruction of full thickness skin defects using minced split thickness skin grafts and biodegradable synthetic scaffolds as a dermal substitute. <i>Burns</i> , 2014 , 40, 957-65	2.3	27
70	In situ image analysis of interactions between normal human keratinocytes and fibroblasts cultured in three-dimensional fibrin gels. <i>Biomaterials</i> , 2006 , 27, 3459-65	15.6	26
69	Acute in vivo response to an alternative implant for urogynecology. <i>BioMed Research International</i> , 2014 , 2014, 853610	3	25
68	Quantum Dot Superluminescent Diodes for Optical Coherence Tomography: Skin Imaging. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 748-754	3.8	25
67	Complications related to use of mesh implants in surgical treatment of stress urinary incontinence and pelvic organ prolapse: infection or inflammation?. <i>World Journal of Urology</i> , 2020 , 38, 73-80	4	25
66	Fabrication of biodegradable synthetic perfusable vascular networks via a combination of electrospinning and robocasting. <i>Biomaterials Science</i> , 2015 , 3, 592-6	7.4	24
65	Antimicrobial activity of novel biocompatible wound dressings based on triblock copolymer hydrogels. <i>Journal of Materials Science</i> , 2009 , 44, 6233-6246	4.3	23
64	Enhancement of keratinocyte performance in the production of tissue-engineered skin using a low-calcium medium. <i>Wound Repair and Regeneration</i> , 2007 , 15, 718-26	3.6	23
63	Modeling the effect of exogenous calcium on keratinocyte and HaCat cell proliferation and differentiation using an agent-based computational paradigm. <i>Tissue Engineering</i> , 2006 , 12, 2301-9		23
62	A Cell Therapy for Chronic Wounds Based Upon a Plasma Polymer Delivery Surface. <i>Plasma Processes and Polymers</i> , 2006 , 3, 419-430	3.4	23
61	Biodegradable scaffolds designed to mimic fascia-like properties for the treatment of pelvic organ prolapse and stress urinary incontinence. <i>Journal of Biomaterials Applications</i> , 2016 , 30, 1578-88	2.9	22
60	Monitoring fibrous scaffold guidance of three-dimensional collagen organisation using minimally-invasive second harmonic generation. <i>PLoS ONE</i> , 2014 , 9, e89761	3.7	22
59	Characterisation of structural changes in collagen with Raman spectroscopy. <i>Applied Spectroscopy Reviews</i> , 2019 , 54, 509-542	4.5	22

58	Production, Sterilisation and Storage of Biodegradable Electrospun PLGA Membranes for Delivery of Limbal Stem Cells to the Cornea. <i>Procedia Engineering</i> , 2013 , 59, 101-116		21
57	Agent based modelling helps in understanding the rules by which fibroblasts support keratinocyte colony formation. <i>PLoS ONE</i> , 2008 , 3, e2129	3.7	21
56	Development of a plasma-polymerized surface suitable for the transplantation of keratinocyte-melanocyte cocultures for patients with vitiligo. <i>Tissue Engineering</i> , 2003 , 9, 1123-31		21
55	Glucose-dependent uptake of chromium in human and rat insulin-sensitive tissues. <i>Clinical Science</i> , 1993 , 84, 477-82	6.5	20
54	Simple surface coating of electrospun poly-L-lactic acid scaffolds to induce angiogenesis. <i>Journal of Biomaterials Applications</i> , 2015 , 30, 50-60	2.9	19
53	Methods to reduce the contraction of tissue-engineered buccal mucosa for use in substitution urethroplasty. <i>European Urology</i> , 2011 , 60, 856-61	10.2	19
52	Using swept-source optical coherence tomography to monitor the formation of neo-epidermis in tissue-engineered skin. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2010 , 4, 652-8	4.4	19
51	Landmarks in vaginal mesh development: polypropylene mesh for treatment of SUI and POP. <i>Nature Reviews Urology</i> , 2019 , 16, 675-689	5.5	18
50	Rocking media over ex vivo corneas improves this model and allows the study of the effect of proinflammatory cytokines on wound healing. <i>Investigative Ophthalmology and Visual Science</i> , 2015 , 56, 1553-61		18
49	Overcoming scarring in the urethra: Challenges for tissue engineering. <i>Asian Journal of Urology</i> , 2018 , 5, 69-77	2.7	18
48	Investigating Neovascularization in Rat Decellularized Intestine: An In Vitro Platform for Studying Angiogenesis. <i>Tissue Engineering - Part A</i> , 2016 , 22, 1317-1326	3.9	18
47	Translocation of flexible polymersomes across pores at the nanoscale. <i>Biomaterials Science</i> , 2014 , 2, 680-92	7.4	17
46	Transforming ocular surface stem cell research into successful clinical practice. <i>Indian Journal of Ophthalmology</i> , 2014 , 62, 29-40	1.6	17
45	Characterisation and evaluation of the impact of microfabricated pockets on the performance of limbal epithelial stem cells in biodegradable PLGA membranes for corneal regeneration. <i>Biomaterials Science</i> , 2014 , 2, 723-734	7.4	16
44	Arginine functionalization of hydrogels for heparin binding--a supramolecular approach to developing a pro-angiogenic biomaterial. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 296-317	4.9	16
43	Real-time detection of stress in 3D tissue-engineered constructs using NF-kappaB activation in transiently transfected human dermal fibroblast cells. <i>Tissue Engineering</i> , 2007 , 13, 1013-24		16
42	Triethyl orthoformate covalently cross-linked chitosan-(poly vinyl) alcohol based biodegradable scaffolds with heparin-binding ability for promoting neovascularisation. <i>Journal of Biomaterials Applications</i> , 2016 , 31, 582-593	2.9	16
41	An Improved Methodology to Visualise Tumour Induced Changes in Vasculature Using the Chick Chorionic Allantoic Membrane Assay. <i>In Vivo</i> , 2018 , 32, 461-472	2.3	15

40	Combination of microstereolithography and electrospinning to produce membranes equipped with niches for corneal regeneration. <i>Journal of Visualized Experiments</i> , 2014 , 51826	1.6	14
39	Application of Tissue Engineering to Pelvic Organ Prolapse and Stress Urinary Incontinence. <i>LUTS: Lower Urinary Tract Symptoms</i> , 2015 , 7, 63-70	1.9	14
38	Postproduction processing of electrospun fibres for tissue engineering. <i>Journal of Visualized Experiments</i> , 2012 ,	1.6	14
37	Bioengineering Vascular Networks to Study Angiogenesis and Vascularization of Physiologically Relevant Tissue Models. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 3513-3528	5.5	13
36	Cultivation of limbal epithelial cells on electrospun poly (lactide-co-glycolide) scaffolds for delivery to the cornea. <i>Methods in Molecular Biology</i> , 2013 , 1014, 179-85	1.4	13
35	Antimicrobial Graft Copolymer Gels. <i>Biomacromolecules</i> , 2016 , 17, 2710-8	6.9	12
34	Recent advances in pelvic floor repair. <i>F1000Research</i> , 2019 , 8,	3.6	12
33	Deoxy-sugar releasing biodegradable hydrogels promote angiogenesis and stimulate wound healing. <i>Materials Today Communications</i> , 2017 , 13, 295-305	2.5	12
32	Inhibition of keratinocyte-driven contraction of tissue-engineered skin in vitro by calcium chelation and early restraint but not submerged culture. <i>Journal of Burn Care and Research</i> , 2008 , 29, 369-77	0.8	12
31	Bioengineered airway epithelial grafts with mucociliary function based on collagen IV- and laminin-containing extracellular matrix scaffolds. <i>European Respiratory Journal</i> , 2020 , 55,	13.6	12
30	Pre-Seeding of Simple Electrospun Scaffolds with a Combination of Endothelial Cells and Fibroblasts Strongly Promotes Angiogenesis. <i>Tissue Engineering and Regenerative Medicine</i> , 2020 , 17, 445-458	4.5	12
29	Amine functional hydrogels as selective substrates for corneal epithelialization. <i>Acta Biomaterialia</i> , 2014 , 10, 3029-37	10.8	11
28	A novel route for the production of chitosan/poly(lactide-co-glycolide) graft copolymers for electrospinning. <i>Biomedical Materials (Bristol)</i> , 2010 , 5, 065016	3.5	11
27	Development of a mini 3D cell culture system using well defined nickel grids for the investigation of cell scaffold interactions. <i>Journal of Materials Science: Materials in Medicine</i> , 2009 , 20, 1483-93	4.5	10
26	Synthetic biodegradable alternatives to the use of the amniotic membrane for corneal regeneration: assessment of local and systemic toxicity in rabbits. <i>British Journal of Ophthalmology</i> , 2019 , 103, 286-292	5.5	10
25	Haptotactic Plasma Polymerized Surfaces for Rapid Tissue Regeneration and Wound Healing. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 32675-32687	9.5	8
24	Pulsatile exposure to simulated reflux leads to changes in gene expression in a 3D model of oesophageal mucosa. <i>International Journal of Experimental Pathology</i> , 2014 , 95, 216-28	2.8	8
23	Fabrication of Biodegradable Synthetic Vascular Networks and Their Use as a Model of Angiogenesis. <i>Cells Tissues Organs</i> , 2016 , 202, 319-328	2.1	6

22	Tracking nanoparticles in three-dimensional tissue-engineered models using confocal laser scanning microscopy. <i>Methods in Molecular Biology</i> , 2011 , 695, 41-51	1.4	5
21	Economic, clinical and social impact of simple limbal epithelial transplantation for limbal stem cell deficiency. <i>British Journal of Ophthalmology</i> , 2021 ,	5.5	5
20	Production and Characterization of a Novel, Electrospun, Tri-Layer Polycaprolactone Membrane for the Segregated Co-Culture of Bone and Soft Tissue. <i>Polymers</i> , 2016 , 8,	4.5	5
19	Developing affordable and accessible pro-angiogenic wound dressings; incorporation of 2 deoxy D-ribose (2dDR) into cotton fibres and wax-coated cotton fibres. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2020 , 14, 973-988	4.4	4
18	Repairing the female pelvic floor: when good enough is not good enough. <i>Nature Reviews Urology</i> , 2018 , 15, 197-198	5.5	4
17	Developing improved tissue-engineered buccal mucosa grafts for urethral reconstruction. <i>Canadian Urological Association Journal</i> , 2018 , 12, E234-E242	1.2	4
16	An estradiol releasing, proangiogenic hydrogel as a candidate material for use in soft tissue interposition. <i>Neurourology and Urodynamics</i> , 2019 , 38, 1195-1202	2.3	3
15	The calmodulin content of normal and leukaemic lymphocytes. <i>Bioscience Reports</i> , 1985 , 5, 721-7	4.1	3
14	The use of implanted materials for treating women with pelvic organ prolapse and stress urinary incontinence. <i>Current Opinion in Urology</i> , 2019 , 29, 431-436	2.8	3
13	Re: Guido Barbagli, Massimo Lazzeri. Clinical Experience with Urethral Reconstruction Using Tissue-engineered Oral Mucosa: A Quiet Revolution. <i>Eur Urol</i> . In press. http://dx.doi.org/10.1016/j.eururo.2015.05.043 . <i>European Urology</i> , 2015 , 68, e99-100	10.2	2
12	Identification of a fibrin concentration that promotes skin cell outgrowth from skin explants onto a synthetic dermal substitute. <i>JPRAS Open</i> , 2020 , 25, 8-17	1.2	2
11	Calmodulin antagonists of improved specificity and potency. <i>Biochemical Society Transactions</i> , 1986 , 14, 627-627	5.1	2
10	The Use of Microfabrication Techniques for the Design and Manufacture of Artificial Stem Cell Microenvironments for Tissue Regeneration. <i>Bioengineering</i> , 2021 , 8,	5.3	2
9	Tissue engineering for the pelvic floor. <i>Current Opinion in Urology</i> , 2019 , 29, 426-430	2.8	2
8	Synthetic Materials Used in the Surgical Treatment of Pelvic Organ Prolapse: Problems of Currently Used Material and Designing the Ideal Material 2018 ,		2
7	Modeling the Effect of Exogenous Calcium on Keratinocyte and HaCat Cell Proliferation and Differentiation Using an Agent-Based Computational Paradigm. <i>Tissue Engineering</i> , 2006 , 060913044658037		1
6	Tuning Electrospun Substrate Stiffness for the Fabrication of a Biomimetic Amniotic Membrane Substitute for Corneal Healing.. <i>ACS Applied Bio Materials</i> , 2021 , 4, 5638-5649	4.1	1
5	Proof-of-concept study of electrospun PLGA membrane in the treatment of limbal stem cell deficiency. <i>BMJ Open Ophthalmology</i> , 2021 , 6, e000762	3.2	1

4	Delivery of Bioactive Compounds to Improve Skin Cell Responses on Microfabricated Electrospun Microenvironments. <i>Bioengineering</i> , 2021 , 8,	5.3	1
3	Engineering of Accepted Skin-Equivalent Tissue for Tissue Repair: Current State and Perspectives 2019 , 285-285		0
2	Response to letter to the editor: Construction of skin substitutes using minced split-thickness autografts and biodegradable synthetic scaffolds <i>Burns</i> , 2014 , 40, 1233-4	2.3	
1	Effect of lithium on thyrotropin-stimulated adenylate cyclase activity in the human thyroid. <i>Biochemical Society Transactions</i> , 1989 , 17, 87-87	5.1	