Michael V Sefton

List of Publications by Year in Descending Order

131 papers	5,004 citations	34 h-index	68 g-index
139 ext. papers	5,508 ext. citations	8.1 avg, IF	5.93 L-index

#	Paper	IF	Citations
131	P.160: Immune Response to Vascularizing Subcutaneous Engineered Islet Grafts.. *Transplantation*, **2021**, 105, S67	1.8	
130	Degradable methacrylic acid-based synthetic hydrogel for subcutaneous islet transplantation.. *Biomaterials*, **2021**, 281, 121342	15.6	0
129	Promoting endogenous repair of skeletal muscle using regenerative biomaterials. *Journal of Biomedical Materials Research - Part A*, **2021**, 109, 2720-2739	5.4	1
128	A scalable device-less biomaterial approach for subcutaneous islet transplantation. *Biomaterials*, **2021**, 269, 120499	15.6	7
127	Methacrylic acid-based hydrogels enhance skeletal muscle regeneration after volumetric muscle loss in mice. *Biomaterials*, **2021**, 275, 120909	15.6	5
126	Endothelialized collagen based pseudo-islets enables tuneable subcutaneous diabetes therapy. *Biomaterials*, **2020**, 232, 119710	15.6	19
125	Acquisition of a Unique Mesenchymal Precursor-like Blastema State Underlies Successful Adult Mammalian Digit Tip Regeneration. *Developmental Cell*, **2020**, 52, 509-524.e9	10.2	30
124	Endothelialized collagen modules for islet tissue engineering **2020**, 277-287		
123	Nonthrombogenic Treatments and Strategies **2020**, 515-537		
122	Poly-Methacrylic Acid Cross-Linked with Collagen Accelerates Diabetic Wound Closure. *ACS Biomaterials Science and Engineering*, **2020**, 6, 6368-6377	5.5	3
121	Methacrylic acid copolymer coating of polypropylene mesh chamber improves subcutaneous islet engraftment. *Biomaterials*, **2020**, 259, 120324	15.6	10
120	Injectable and degradable methacrylic acid hydrogel alters macrophage response in skeletal muscle. *Biomaterials*, **2019**, 223, 119477	15.6	20
119	The blood compatibility challenge. Part 3: Material associated activation of blood cascades and cells. *Acta Biomaterialia*, **2019**, 94, 25-32	10.8	33
118	Methacrylic Acid Copolymer Coating Enhances Constructive Remodeling of Polypropylene Mesh by Increasing the Vascular Response. *Advanced Healthcare Materials*, **2019**, 8, e1900667	10.1	6
117	Hypoxia-Inducible Factor Drives Vascularization of Modularly Assembled Engineered Tissue. *Tissue Engineering - Part A*, **2019**, 25, 1127-1136	3.9	1
116	Bone Marrow-Derived Macrophages Enhance Vessel Stability in Modular Engineered Tissues. *Tissue Engineering - Part A*, **2019**, 25, 911-923	3.9	5
115	Interpenetrating Alginate-Collagen Polymer Network Microspheres for Modular Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2018**, 4, 3704-3712	5.5	19

114	Muted fibrosis from protected islets. *Nature Biomedical Engineering*, **2018**, 2, 791-792	19	3
113	Injectable and inherently vascularizing semi-interpenetrating polymer network for delivering cells to the subcutaneous space. *Biomaterials*, **2017**, 131, 27-35	15.6	24
112	The role of insulin growth factor-1 on the vascular regenerative effect of MAA coated disks and macrophage-endothelial cell crosstalk. *Biomaterials*, **2017**, 144, 199-210	15.6	21
111	Modular tissue engineering for the vascularization of subcutaneously transplanted pancreatic islets. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9337-9342	11.5	69
110	The profile of adsorbed plasma and serum proteins on methacrylic acid copolymer beads: Effect on complement activation. *Biomaterials*, **2017**, 118, 74-83	15.6	21
109	Collagen modules for in situ delivery of mesenchymal stromal cell-derived endothelial cells for improved angiogenesis. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, 363-73	4.4	7
108	Harnessing gene and drug delivery for vascularizing engineered tissue platforms. *Drug Discovery Today*, **2016**, 21, 1532-1539	8.8	5
107	Shh pathway in wounds in non-diabetic Shh-Cre-eGFP/Ptch1-LacZ mice treated with MAA beads. *Biomaterials*, **2016**, 102, 198-208	15.6	6
106	Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis. *Nature Materials*, **2016**, 15, 669-78	27	354
105	Identification of Drugs that Regulate Dermal Stem Cells and Enhance Skin Repair. *Stem Cell Reports*, **2016**, 6, 74-84	8	14
104	Effect of methacrylic acid beads on the sonic hedgehog signaling pathway and macrophage polarization in a subcutaneous injection mouse model. *Biomaterials*, **2016**, 98, 203-14	15.6	23
103	Commentary on: "In Vivo Remodelling of Vascularizing Engineered Tissues". *Annals of Biomedical Engineering*, **2015**, 43, 1271	4.7	
102	Unbiased phosphoproteomic method identifies the initial effects of a methacrylic acid copolymer on macrophages. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 10673-8	11.5	10
101	Fate of modular cardiac tissue constructs in a syngeneic rat model. *Journal of Tissue Engineering and Regenerative Medicine*, **2015**, 9, 1247-58	4.4	7
100	A novel high-speed production process to create modular components for the bottom-up assembly of large-scale tissue-engineered constructs. *Advanced Healthcare Materials*, **2015**, 4, 113-20	10.1	27
99	Application of Modular Therapy for Renoprotection in Experimental Chronic Kidney Disease. *Tissue Engineering - Part A*, **2015**, 21, 1963-72	3.9	1
98	In vivo remodelling of vascularizing engineered tissues. *Annals of Biomedical Engineering*, **2015**, 43, 1189-200	4.7	7
97	Del-1 overexpression in endothelial cells increases vascular density in tissue-engineered implants containing endothelial cells and adipose-derived mesenchymal stromal cells. *Tissue Engineering - Part A*, **2014**, 20, 1235-52	3.9	18

96	Cell and biomolecule delivery for tissue repair and regeneration in the central nervous system. *Journal of Controlled Release*, **2014**, 190, 219-27	11.7	79
95	Anti-microRNA-378a enhances wound healing process by upregulating integrin beta-3 and vimentin. *Molecular Therapy*, **2014**, 22, 1839-50	11.7	33
94	Using Del-1 to tip the angiogenic balance in endothelial cells in modular constructs. *Tissue Engineering - Part A*, **2014**, 20, 1222-34	3.9	5
93	The effect of methacrylic acid in smooth coatings on dTHP1 and HUVEC gene expression. *Biomaterials Science*, **2014**, 2, 1768-1778	7.4	11
92	Angiogenic Biomaterials to Promote Tissue Vascularization and Integration. *Israel Journal of Chemistry*, **2013**, 53, n/a-n/a	3.4	3
91	The Modular Approach **2013**, 119-148		1
90	The expression of sonic hedgehog in diabetic wounds following treatment with poly(methacrylic acid-co-methyl methacrylate) beads. *Biomaterials*, **2012**, 33, 5297-307	15.6	23
89	Toward an in vitro vasculature: differentiation of mesenchymal stromal cells within an endothelial cell-seeded modular construct in a microfluidic flow chamber. *Tissue Engineering - Part A*, **2012**, 18, 744-58	3.9	28
88	Chapter II.5.2 Nonthrombogenic Treatments and Strategies **2012**, 1488-1509		2
87	Some aspects of the host response to methacrylic acid containing beads in a mouse air pouch. *Journal of Biomedical Materials Research - Part A*, **2012**, 100, 2054-62	5.4	9
86	Cotransplantation of adipose-derived mesenchymal stromal cells and endothelial cells in a modular construct drives vascularization in SCID/bg mice. *Tissue Engineering - Part A*, **2012**, 18, 1628-41	3.9	42
85	Bone marrow-derived mesenchymal stromal cells enhance chimeric vessel development driven by endothelial cell-coated microtissues. *Tissue Engineering - Part A*, **2012**, 18, 285-94	3.9	38
84	Functionalized scaffold-mediated interleukin 10 gene delivery significantly improves survival rates of stem cells in vivo. *Molecular Therapy*, **2011**, 19, 969-78	11.7	33
83	Endothelialized biomaterials for tissue engineering applications in vivo. *Trends in Biotechnology*, **2011**, 29, 379-87	15.1	68
82	On the mechanism of poly(methacrylic acid -co- methyl methacrylate)-induced angiogenesis: gene expression analysis of dTHP-1 cells. *Biomaterials*, **2011**, 32, 8957-67	15.6	20
81	Endothelial cell behaviour within a microfluidic mimic of the flow channels of a modular tissue engineered construct. *Biomedical Microdevices*, **2011**, 13, 69-87	3.7	43
80	Effectiveness factor and diffusion limitations in collagen gel modules containing HepG2 cells. *Journal of Tissue Engineering and Regenerative Medicine*, **2011**, 5, 119-29	4.4	30
79	A poloxamine-polylysine acrylate scaffold for modular tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, **2011**, 22, 2515-28	3.5	10

78	Application of an endothelialized modular construct for islet transplantation in syngeneic and allogeneic immunosuppressed rat models. *Tissue Engineering - Part A*, **2011**, 17, 2005-15	3.9	29
77	Patterning collagen/poloxamine-methacrylate hydrogels for tissue-engineering-inspired microfluidic and laser lithography applications. *Journal of Biomaterials Science, Polymer Edition*, **2011**, 22, 2499-514	3.5	8
76	Chimeric vessel tissue engineering driven by endothelialized modules in immunosuppressed Sprague-Dawley rats. *Tissue Engineering - Part A*, **2011**, 17, 151-60	3.9	27
75	A modular approach to cardiac tissue engineering. *Tissue Engineering - Part A*, **2010**, 16, 3207-18	3.9	45
74	Fabrication of micro-tissues using modules of collagen gel containing cells. *Journal of Visualized Experiments*, **2010**,	1.6	6
73	Poly(methacrylic acid-co-methyl methacrylate) beads promote vascularization and wound repair in diabetic mice. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 484-92	5.4	7
72	MMP levels in the response to degradable implants in the presence of a hydroxamate-based matrix metalloproteinase sequestering biomaterial in vivo. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 1368-79	5.4	4
71	Perfusion and characterization of an endothelial cell-seeded modular tissue engineered construct formed in a microfluidic remodeling chamber. *Biomaterials*, **2010**, 31, 8254-61	15.6	26
70	IL-10 secretion increases signal persistence of HEMA-MMA-microencapsulated luciferase-modified CHO fibroblasts in mice. *Tissue Engineering - Part A*, **2009**, 15, 127-36	3.9	8
69	Amidine surface modification of poly(acrylonitrile-co-vinyl chloride) reduces platelet adhesion. *Journal of Biomedical Materials Research - Part A*, **2009**, 89, 780-90	5.4	9
68	The effect of a hydroxamic acid-containing polymer on active matrix metalloproteinases. *Biomaterials*, **2009**, 30, 1890-7	15.6	26
67	An Artificial Endocrine Pancreas Containing Cultured Islets of Langerhans. *Artificial Organs*, **2008**, 4, 275-278	2.6	35
66	A preliminary study of the effect of poly(methacrylic acid-co-methyl methacrylate) beads on angiogenesis in rodent skin grafts and the quality of the panniculus carnosus. *Plastic and Reconstructive Surgery*, **2008**, 122, 1361-1370	2.7	24
65	Effect of mouse VEGF164 on the viability of hydroxyethyl methacrylate-methyl methacrylate-microencapsulated cells in vivo: bioluminescence imaging. *Journal of Biomedical Materials Research - Part A*, **2008**, 87, 321-31	5.4	10
64	The thrombogenicity of human umbilical vein endothelial cell seeded collagen modules. *Biomaterials*, **2008**, 29, 2453-63	15.6	49
63	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
62	Poly(butyl methacrylate-co-methacrylic acid) tissue engineering scaffold with pro-angiogenic potential in vivo. *Journal of Biomedical Materials Research - Part A*, **2007**, 82, 265-73	5.4	20
61	The influence of biomaterials on endothelial cell thrombogenicity. *Biomaterials*, **2007**, 28, 2547-71	15.6	191

60	Modular tissue engineering: fabrication of a gelatin-based construct. *Journal of Tissue Engineering and Regenerative Medicine*, **2007**, 1, 136-45	4.4	36
59	Design criteria for a modular tissue-engineered construct. *Tissue Engineering*, **2007**, 13, 1079-89		25
58	Design and fabrication of sub-mm-sized modules containing encapsulated cells for modular tissue engineering. *Tissue Engineering*, **2007**, 13, 1069-78		42
57	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
56	Methylation of poloxamine for enhanced cell adhesion. *Biomacromolecules*, **2006**, 7, 331-8	6.9	37
55	Fabrication of cell-containing gel modules to assemble modular tissue-engineered constructs [corrected]. *Nature Protocols*, **2006**, 1, 2963-9	18.8	54
54	Vascularized Organoid Engineered by Modular Assembly Enables Blood Perfusion. *FASEB Journal*, **2006**, 20, A436	0.9	1
53	Semi-synthetic collagen/poloxamine matrices for tissue engineering. *Biomaterials*, **2005**, 26, 7425-35	15.6	77
52	Poloxamine hydrogels with a quaternary ammonium modification to improve cell attachment. *Journal of Biomedical Materials Research - Part A*, **2005**, 75, 295-307	5.4	29
51	Endotoxin: the uninvited guest. *Biomaterials*, **2005**, 26, 6811-7	15.6	275
50	Collagen/poloxamine hydrogels: cytocompatibility of embedded HepG2 cells and surface-attached endothelial cells. *Tissue Engineering*, **2005**, 11, 1807-16		27
49	006Development of a Novel Matrix Metalloproteinase-Inhibiting Wound Dressing. *Wound Repair and Regeneration*, **2004**, 12, A4-A4	3.6	
48	Expression of matrix metalloproteinase-2 and -9 in exudates associated with polydimethyl siloxane and gelatin tubes implanted in mice. *Journal of Biomedical Materials Research Part B*, **2004**, 71, 226-32		5
47	Biomaterial-associated thrombosis: roles of coagulation factors, complement, platelets and leukocytes. *Biomaterials*, **2004**, 25, 5681-703	15.6	993
46	Functional considerations in tissue-engineering whole organs. *Annals of the New York Academy of Sciences*, **2002**, 961, 198-200	6.5	10
45	Perspective on hemocompatibility testing. *Journal of Biomedical Materials Research Part B*, **2001**, 55, 445-6		4
44	Does surface chemistry affect thrombogenicity of surface modified polymers?. *Journal of Biomedical Materials Research Part B*, **2001**, 55, 447-59		55
43	Leukocyte activation and leukocyte procoagulant activities after blood contact with polystyrene and polyethylene glycol-immobilized polystyrene beads. *Translational Research*, **2001**, 137, 345-55		48

42	Microencapsulation of normal and transfected L929 fibroblasts in a HEMA-MMA copolymer. *Tissue Engineering*, **2000**, 6, 139-49		35
41	Conformal coating of small particles and cell aggregates at a liquid-liquid interface. *Annals of the New York Academy of Sciences*, **1999**, 875, 126-34	6.5	22
40	Tumor necrosis factor (TNFalpha) production by rat peritoneal macrophages is not polyacrylate surface-chemistry dependent. *Journal of Biomedical Materials Research Part B*, **1999**, 46, 324-30		13
39	HEMA/MMMA microcapsule implants in hemiparkinsonian rat brain: biocompatibility assessment using [3H]PK11195 as a marker for gliosis. *Biomaterials*, **1998**, 19, 829-37	15.6	33
38	X-ray photoelectron spectroscopy (XPS) surface analysis of HEMA-MMA microcapsules. *Journal of Biomaterials Science, Polymer Edition*, **1997**, 8, 655-65	3.5	2
37	Flow cytometric analysis of material-induced platelet activation in a canine model: elevated microparticle levels and reduced platelet life span. *Journal of Biomedical Materials Research Part B*, **1997**, 37, 176-81		28
36	Video analysis of submerged jet microencapsulation using HEMA-MMA. *Canadian Journal of Chemical Engineering*, **1996**, 74, 518-525	2.3	4
35	Material-induced up-regulation of leukocyte CD11b during whole blood contact: material differences and a role for complement. *Journal of Biomedical Materials Research Part B*, **1996**, 32, 29-35		34
34	Dopamine secretion by PC12 cells microencapsulated in a hydroxyethyl methacrylate--methyl methacrylate copolymer. *Biomaterials*, **1996**, 17, 267-75	15.6	52
33	Preparation and characterization of alkylated poly(vinyl alcohol) hydrogels using alkyl halides. *Journal of Biomaterials Science, Polymer Edition*, **1996**, 7, 647-59	3.5	3
32	Viability and protein secretion from human Hepatoma (HepG2) cells encapsulated in 400-mum polyacrylate microcapsules by submerged nozzle-liquid jet extrusion. *Biotechnology and Bioengineering*, **1994**, 44, 1199-204	4.9	40
31	Does polyethylene oxide possess a low thrombogenicity?. *Journal of Biomaterials Science, Polymer Edition*, **1993**, 4, 381-400	3.5	91
30	Thrombin and albumin adsorption to PVA and heparin-PVA hydrogels. 2: Competition and displacement. *Journal of Biomedical Materials Research Part B*, **1993**, 27, 89-95		9
29	Microencapsulated human hepatoma (HepG2) cells: in vitro growth and protein release. *Journal of Biomedical Materials Research Part B*, **1993**, 27, 1213-24		62
28	Immobilization of poly(ethylene glycol) onto a poly(vinyl alcohol) hydrogel: 2. Evaluation of thrombogenicity. *Journal of Biomedical Materials Research Part B*, **1993**, 27, 1383-91		62
27	Metabolic activity of CHO fibroblasts in HEMA-MMA microcapsules. *Biotechnology and Bioengineering*, **1992**, 39, 672-8	4.9	28
26	Preparation and thrombogenicity of alkylated polyvinyl alcohol coated tubing. *Journal of Biomedical Materials Research Part B*, **1992**, 26, 577-92		27
25	Measurement of the rate of thrombin production in human plasma in contact with different materials. *Journal of Biomedical Materials Research Part B*, **1992**, 26, 675-93		12

24	Morphological assessment of hepatoma cells (HepG2) microencapsulated in a HEMA-MMA copolymer with and without Matrigel. *Journal of Biomedical Materials Research Part B*, **1992**, 26, 1401-18		36
23	Production of uniform drops of viscous liquids using a coaxial airstream. *Canadian Journal of Chemical Engineering*, **1991**, 69, 245-250	2.3	4
22	Microencapsulation of mammalian cells in a HEMA-MMA copolymer: effects on capsule morphology and permeability. *Journal of Biomedical Materials Research Part B*, **1990**, 24, 1241-62		93
21	Blood, guts and chemical engineering. *Canadian Journal of Chemical Engineering*, **1989**, 67, 705-712	2.3	9
20	In vitro platelet interactions with a heparin-polyvinyl alcohol hydrogel. *Journal of Biomedical Materials Research Part B*, **1989**, 23, 399-415		32
19	Effect of heparin-PVA hydrogel on platelets in a chronic canine arterio-venous shunt. *Journal of Biomedical Materials Research Part B*, **1989**, 23, 417-41		61
18	Permeability of a heparin-polyvinyl alcohol hydrogel to thrombin and antithrombin III. *Journal of Biomedical Materials Research Part B*, **1988**, 22, 673-85		24
17	Microencapsulation of mammalian cells in a water-insoluble polyacrylate by coextrustion and interfacial precipitation. *Biotechnology and Bioengineering*, **1987**, 29, 1135-43	4.9	58
16	Microencapsulation of human fibroblasts in a water-insoluble polyacrylate. *Biotechnology and Bioengineering*, **1987**, 30, 954-62	4.9	28
15	Sorption of carbon tetrachloride in low-density polyethylene pellets. *Journal of Applied Polymer Science*, **1986**, 31, 2109-2115	2.9	1
14	Crystallinity and dicumyl peroxide diffusivity in low density polyethylene with different thermal histories. *Journal of Applied Polymer Science*, **1986**, 31, 2195-2202	2.9	3
13	A model of insulin delivery by a controlled release micropump. *Annals of Biomedical Engineering*, **1986**, 14, 257-76	4.7	5
12	Parallel flow arteriovenous shunt for the ex vivo evaluation of heparinized materials. *Journal of Biomedical Materials Research Part B*, **1985**, 19, 161-78		33
11	THE THROMBORESISTANCE OF A HEPARIN-POLYVINYL ALCOHOL HYDROGEL *Chemical Engineering Communications*, **1984**, 30, 141-154	2.2	4
10	Absorption of dicumyl peroxide by extruded polyethylene: Difference between surface and bulk morphology. *Journal of Applied Polymer Science*, **1984**, 29, 2383-2393	2.9	2
9	Properties of a heparin-poly(vinyl alcohol) hydrogel coating. *Journal of Biomedical Materials Research Part B*, **1983**, 17, 359-73		82
8	Fate of Thrombin and Thrombin-Antithrombin-III Complex Adsorbed to a Heparinized Biomaterial: Analysis of the Enzyme-Inhibitor Complexes Displaced by Plasma. *Thrombosis and Haemostasis*, **1983**, 50, 873-877	7	16
7	Stain length passive dosimeters. *AIHA Journal*, **1982**, 43, 820-824		2

6	Patency of heparinized SBS shunts at high shear rates. *Biomaterials, Medical Devices, and Artificial Organs*, **1981**, 9, 127-42		8
5	Absorption of benzene by open-cell polyurethane foams. *Journal of Applied Polymer Science*, **1980**, 25, 829-839	2.9	9
4	Hydraulic permeability of open-cell hydrophilic polyurethane foams. *Journal of Applied Polymer Science*, **1980**, 25, 2167-2178	2.9	3
3	Structural Analysis by Diffusion Measurements: SBS Block Copolymers and Polyethylene. *Advances in Chemistry Series*, **1979**, 243-257		1
2	Heparinized styrene-butadiene-styrene elastomers. *Journal of Biomedical Materials Research Part B*, **1979**, 13, 347-64		56
1	Structure of styrene□butadiene□styrene block copolymers by diffusion analysis. *Journal of Polymer Science, Polymer Physics Edition*, **1977**, 15, 1927-1935		14