Ferry P W Melchels

List of Publications by Year in Descending Order

43 papers	9,370 citations	32 h-index	47 g-index
47 ext. papers	10,874 ext. citations	10.7 avg, IF	6.3 L-index

#	Paper	IF	Citations
43	Routes towards manufacturing biodegradable electronics with polycaprolactone (PCL) via direct light writing and electroless plating. *Flexible and Printed Electronics*, **2022**, 7, 025006	3.1	3
42	3D Printing in Suspension Baths: Keeping the Promises of Bioprinting Afloat. *Trends in Biotechnology*, **2020**, 38, 584-593	15.1	93
41	Three dimensional in vitro models of cancer: Bioprinting multilineage glioblastoma models. *Advances in Biological Regulation*, **2020**, 75, 100658	6.2	36
40	Prolonged recovery of 3D printed, photo-cured polylactide shape memory polymer networks. *APL Bioengineering*, **2020**, 4, 036105	6.6	6
39	3D Bioprinting of Lignocellulosic Biomaterials. *Advanced Healthcare Materials*, **2020**, 9, e2001472	10.1	24
38	Emulating Human Tissues and Organs: A Bioprinting Perspective Toward Personalized Medicine. *Chemical Reviews*, **2020**, 120, 11128-11174	68.1	24
37	Visible Light Cross-Linking of Gelatin Hydrogels Offers an Enhanced Cell Microenvironment with Improved Light Penetration Depth. *Macromolecular Bioscience*, **2019**, 19, e1900098	5.5	63
36	Comparing Hydrogels for Human Nucleus Pulposus Regeneration: Role of Osmolarity During Expansion. *Tissue Engineering - Part C: Methods*, **2018**, 24, 222-232	2.9	10
35	Bio-resin for high resolution lithography-based biofabrication of complex cell-laden constructs. *Biofabrication*, **2018**, 10, 034101	10.5	135
34	Focal adhesion signaling affects regeneration by human nucleus pulposus cells in collagen- but not carbohydrate-based hydrogels. *Acta Biomaterialia*, **2018**, 66, 238-247	10.8	15
33	Improved bovine embryo production in an oviduct-on-a-chip system: prevention of poly-spermic fertilization and parthenogenic activation. *Lab on A Chip*, **2017**, 17, 905-916	7.2	35
32	3D bioprinting of methacrylated hyaluronic acid (MeHA) hydrogel with intrinsic osteogenicity. *PLoS ONE*, **2017**, 12, e0177628	3.7	169
31	Proposal to assess printability of bioinks for extrusion-based bioprinting and evaluation of rheological properties governing bioprintability. *Biofabrication*, **2017**, 9, 044107	10.5	363
30	Yield stress determines bioprintability of hydrogels based on gelatin-methacryloyl and gellan gum for cartilage bioprinting. *Biofabrication*, **2016**, 8, 035003	10.5	175
29	Hydrogel-based reinforcement of 3D bioprinted constructs. *Biofabrication*, **2016**, 8, 035004	10.5	63
28	Accurate Measurements of the Skin Surface Area of the Healthy Auricle and Skin Deficiency in Microtia Patients. *Plastic and Reconstructive Surgery - Global Open*, **2016**, 4, e1146	1.2	5
27	Functionalization, preparation and use of cell-laden gelatin methacryloyl-based hydrogels as modular tissue culture platforms. *Nature Protocols*, **2016**, 11, 727-46	18.8	391

26	Gelatin-Methacryloyl Hydrogels: Towards Biofabrication-Based Tissue Repair. *Trends in Biotechnology*, **2016**, 34, 394-407	15.1	411
25	Reinforcement of hydrogels using three-dimensionally printed microfibres. *Nature Communications*, **2015**, 6, 6933	17.4	464
24	Initial design and physical characterization of a polymeric device for osmosis-driven delayed burst delivery of vaccines. *Biotechnology and Bioengineering*, **2015**, 112, 1927-35	4.9	4
23	Sustained regeneration of high-volume adipose tissue for breast reconstruction using computer aided design and biomanufacturing. *Biomaterials*, **2015**, 52, 551-60	15.6	75
22	Gelatine methacrylamide-based hydrogels: an alternative three-dimensional cancer cell culture system. *Acta Biomaterialia*, **2014**, 10, 2551-62	10.8	130
21	A biomimetic extracellular matrix for cartilage tissue engineering centered on photocurable gelatin, hyaluronic acid and chondroitin sulfate. *Acta Biomaterialia*, **2014**, 10, 214-23	10.8	234
20	Development and characterisation of a new bioink for additive tissue manufacturing. *Journal of Materials Chemistry B*, **2014**, 2, 2282-2289	7.3	150
19	Effects of scaffold architecture on mechanical characteristics and osteoblast response to static and perfusion bioreactor cultures. *Biotechnology and Bioengineering*, **2014**, 111, 1440-51	4.9	43
18	Chondrocyte redifferentiation and construct mechanical property development in single-component photocrosslinkable hydrogels. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 2544-53	5.4	47
17	25th anniversary article: Engineering hydrogels for biofabrication. *Advanced Materials*, **2013**, 25, 5011-28	24	1194
16	Biofabrication of multi-material anatomically shaped tissue constructs. *Biofabrication*, **2013**, 5, 035007	10.5	221
15	Gelatin-methacrylamide hydrogels as potential biomaterials for fabrication of tissue-engineered cartilage constructs. *Macromolecular Bioscience*, **2013**, 13, 551-61	5.5	507
14	Breast Reconstruction Using Biofabrication-Based Tissue Engineering Strategies **2013**, 183-216		7
13	Additive manufacturing of tissues and organs. *Progress in Polymer Science*, **2012**, 37, 1079-1104	29.6	841
12	Engineering of vascularized adipose constructs. *Cell and Tissue Research*, **2012**, 347, 747-57	4.2	36
11	The influence of the scaffold design on the distribution of adhering cells after perfusion cell seeding. *Biomaterials*, **2011**, 32, 2878-84	15.6	115
10	CAD/CAM-assisted breast reconstruction. *Biofabrication*, **2011**, 3, 034114	10.5	44
9	Photo-Cross-Linked Poly(dl-lactide)-Based Networks. Structural Characterization by HR-MAS NMR Spectroscopy and Hydrolytic Degradation Behavior. *Macromolecules*, **2010**, 43, 8570-8579	5.5	29

8	Effects of the architecture of tissue engineering scaffolds on cell seeding and culturing. *Acta Biomaterialia*, **2010**, 6, 4208-17	10.8	275
7	Designed biodegradable hydrogel structures prepared by stereolithography using poly(ethylene glycol)/poly(D,L-lactide)-based resins. *Journal of Controlled Release*, **2010**, 148, 34-41	11.7	134
6	A review on stereolithography and its applications in biomedical engineering. *Biomaterials*, **2010**, 31, 6121-30	15.6	1426
5	Mathematically defined tissue engineering scaffold architectures prepared by stereolithography. *Biomaterials*, **2010**, 31, 6909-16	15.6	365
4	A poly(D,L-lactide) resin for the preparation of tissue engineering scaffolds by stereolithography. *Biomaterials*, **2009**, 30, 3801-9	15.6	328
3	Fumaric acid monoethyl ester-functionalized poly(D,L-lactide)/N-vinyl-2-pyrrolidone resins for the preparation of tissue engineering scaffolds by stereolithography. *Biomacromolecules*, **2009**, 10, 214-20	6.9	110
2	A review of rapid prototyping techniques for tissue engineering purposes. *Annals of Medicine*, **2008**, 40, 268-80	1.5	557
1	Methacrylate-Functionalized Oligomers Based On Lactide, E-Caprolactone And Trimethylene Carbonate For Application In Stereo-Lithography. *Materials Research Innovations*, **2006**, 10, 321-330	1.9	3