Jeroen Leijten

List of Publications by Citations

70 papers	2,828 citations	33 h-index	52 g-index
80 ext. papers	3,420 ext. citations	9.1 avg, IF	5.19 L-index

#	Paper	IF	Citations
70	Trophic effects of mesenchymal stem cells increase chondrocyte proliferation and matrix formation. *Tissue Engineering - Part A*, **2011**, 17, 1425-36	3.9	212
69	Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs. *Advanced Functional Materials*, **2017**, 27, 1605352	15.6	173
68	Trophic Effects of Mesenchymal Stem Cells in Tissue Regeneration. *Tissue Engineering - Part B: Reviews*, **2017**, 23, 515-528	7.9	142
67	Gene expression profiling of dedifferentiated human articular chondrocytes in monolayer culture. *Osteoarthritis and Cartilage*, **2013**, 21, 599-603	6.2	122
66	Spatially and Temporally Controlled Hydrogels for Tissue Engineering. *Materials Science and Engineering Reports*, **2017**, 119, 1-35	30.9	115
65	Integrin-Mediated Interactions Control Macrophage Polarization in 3D Hydrogels. *Advanced Healthcare Materials*, **2017**, 6, 1700289	10.1	101
64	Gremlin 1, frizzled-related protein, and Dkk-1 are key regulators of human articular cartilage homeostasis. *Arthritis and Rheumatism*, **2012**, 64, 3302-12		101
63	Structural analysis of photocrosslinkable methacryloyl-modified protein derivatives. *Biomaterials*, **2017**, 139, 163-171	15.6	96
62	Cardiovascular Organ-on-a-Chip Platforms for Drug Discovery and Development. *Applied in Vitro Toxicology*, **2016**, 2, 82-96	1.3	95
61	Metabolic programming of mesenchymal stromal cells by oxygen tension directs chondrogenic cell fate. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 13954-9	11.5	85
60	Optimizing cell viability in droplet-based cell deposition. *Scientific Reports*, **2015**, 5, 11304	4.9	72
59	High throughput generated micro-aggregates of chondrocytes stimulate cartilage formation in vitro and in vivo. *European Cells and Materials*, **2012**, 23, 387-99	4.3	70
58	The effect of platelet lysate supplementation of a dextran-based hydrogel on cartilage formation. *Biomaterials*, **2012**, 33, 3651-61	15.6	64
57	Cell sources for articular cartilage repair strategies: shifting from monocultures to cocultures. *Tissue Engineering - Part B: Reviews*, **2013**, 19, 31-40	7.9	61
56	Nanostructured Fibrous Membranes with Rose Spike-Like Architecture. *Nano Letters*, **2017**, 17, 6235-6240	11.5	60
55	Platelet-Rich Blood Derivatives for Stem Cell-Based Tissue Engineering and Regeneration. *Current Stem Cell Reports*, **2016**, 2, 33-42	1.8	55
54	Fibroblast growth factor-1 is a mesenchymal stromal cell-secreted factor stimulating proliferation of osteoarthritic chondrocytes in co-culture. *Stem Cells and Development*, **2013**, 22, 2356-67	4.4	54

53	Oxygen-Generating Photo-Cross-Linkable Hydrogels Support Cardiac Progenitor Cell Survival by Reducing Hypoxia-Induced Necrosis. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1964-1971	5.5	51
52	Single Cell Microgel Based Modular Bioinks for Uncoupled Cellular Micro- and Macroenvironments. *Advanced Healthcare Materials*, **2017**, 6, 1600913	10.1	51
51	GREM1, FRZB and DKK1 mRNA levels correlate with osteoarthritis and are regulated by osteoarthritis-associated factors. *Arthritis Research and Therapy*, **2013**, 15, R126	5.7	51
50	Advancing Tissue Engineering: A Tale of Nano-, Micro-, and Macroscale Integration. *Small*, **2016**, 12, 2130-45	11	49
49	Biomechanical Strain Exacerbates Inflammation on a Progeria-on-a-Chip Model. *Small*, **2017**, 13, 1603737	11	48
48	Single-Cell Microgels: Technology, Challenges, and Applications. *Trends in Biotechnology*, **2018**, 36, 850-865	15.1	43
47	Concise Review: Organ Engineering: Design, Technology, and Integration. *Stem Cells*, **2017**, 35, 51-60	5.8	43
46	Ocular adhesives: Design, chemistry, crosslinking mechanisms, and applications. *Biomaterials*, **2019**, 197, 345-367	15.6	42
45	Centering Single Cells in Microgels via Delayed Crosslinking Supports Long-Term 3D Culture by Preventing Cell Escape. *Small*, **2017**, 13, 1603711	11	36
44	High-throughput approaches for screening and analysis of cell behaviors. *Biomaterials*, **2018**, 153, 85-101	15.6	35
43	Cartilage tissue engineering. *Endocrine Development*, **2011**, 21, 102-115		34
42	Recognizing different tissues in human fetal femur cartilage by label-free Raman microspectroscopy. *Journal of Biomedical Optics*, **2012**, 17, 116012	3.5	34
41	From Nano to Macro: Multiscale Materials for Improved Stem Cell Culturing and Analysis. *Cell Stem Cell*, **2016**, 18, 20-4	18	33
40	3D Printed Cartilage-Like Tissue Constructs with Spatially Controlled Mechanical Properties. *Advanced Functional Materials*, **2019**, 29, 1906330	15.6	33
39	Cell based advanced therapeutic medicinal products for bone repair: Keep it simple?. *Advanced Drug Delivery Reviews*, **2015**, 84, 30-44	18.5	33
38	Hypoxia inhibits hypertrophic differentiation and endochondral ossification in explanted tibiae. *PLoS ONE*, **2012**, 7, e49896	3.7	33
37	Healing of a Large Long-Bone Defect through Serum-Free In Vitro Priming of Human Periosteum-Derived Cells. *Stem Cell Reports*, **2017**, 8, 758-772	8	32
36	The matrix reloaded: the evolution of regenerative hydrogels. *Materials Today*, **2016**, 19, 190-196	21.8	31

35	Ultrahigh-Throughput Production of Monodisperse and Multifunctional Janus Microparticles Using in-Air Microfluidics. *ACS Applied Materials & Interfaces*, **2018**, 10, 23433-23438	9.5	31
34	Bioinspired seeding of biomaterials using three dimensional microtissues induces chondrogenic stem cell differentiation and cartilage formation under growth factor free conditions. *Scientific Reports*, **2016**, 6, 36011	4.9	27
33	In vivo screening of extracellular matrix components produced under multiple experimental conditions implanted in one animal. *Integrative Biology (United Kingdom)*, **2013**, 5, 889-98	3.7	27
32	A dual flow bioreactor with controlled mechanical stimulation for cartilage tissue engineering. *Tissue Engineering - Part C: Methods*, **2013**, 19, 774-83	2.9	26
31	Interconnectable Dynamic Compression Bioreactors for Combinatorial Screening of Cell Mechanobiology in Three Dimensions. *ACS Applied Materials & Interfaces*, **2018**, 10, 13293-13303	9.5	25
30	Nitric Oxide Mediates Crosstalk between Interleukin 1 and WNT Signaling in Primary Human Chondrocytes by Reducing DKK1 and FRZB Expression. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	24
29	Immune Organs and Immune Cells on a Chip: An Overview of Biomedical Applications. *Micromachines*, **2020**, 11,	3.3	21
28	Bioionic Liquid Conjugation as Universal Approach To Engineer Hemostatic Bioadhesives. *ACS Applied Materials & Interfaces*, **2019**, 11, 38373-38384	9.5	20
27	Mimicking the Articular Joint with In Vitro Models. *Trends in Biotechnology*, **2019**, 37, 1063-1077	15.1	20
26	Enzymatic Crosslinking of Polymer Conjugates is Superior over Ionic or UV Crosslinking for the On-Chip Production of Cell-Laden Microgels. *Macromolecular Bioscience*, **2016**, 16, 1524-1532	5.5	20
25	Chondrocytes Cocultured with Stromal Vascular Fraction of Adipose Tissue Present More Intense Chondrogenic Characteristics Than with Adipose Stem Cells. *Tissue Engineering - Part A*, **2016**, 22, 336-48	3.9	19
24	Nanoemulsion-induced enzymatic crosslinking of tyramine-functionalized polymer droplets. *Journal of Materials Chemistry B*, **2017**, 5, 4835-4844	7.3	17
23	Engineering 3D parallelized microfluidic droplet generators with equal flow profiles by computational fluid dynamics and stereolithographic printing. *Lab on A Chip*, **2020**, 20, 490-495	7.2	14
22	Rapid and cytocompatible cell-laden silk hydrogel formation riboflavin-mediated crosslinking. *Journal of Materials Chemistry B*, **2020**, 8, 9566-9575	7.3	14
21	Boosting angiogenesis and functional vascularization in injectable dextran-hyaluronic acid hydrogels by endothelial-like mesenchymal stromal cells. *Tissue Engineering - Part A*, **2014**, 20, 819-29	3.9	13
20	Fetal mesenchymal stromal cells differentiating towards chondrocytes acquire a gene expression profile resembling human growth plate cartilage. *PLoS ONE*, **2012**, 7, e44561	3.7	13
19	Nanomaterials for the Local and Targeted Delivery of Osteoarthritis Drugs. *Journal of Nanomaterials*, **2012**, 2012, 1-13	3.2	12
18	A Qualitative Model of the Differentiation Network in Chondrocyte Maturation: A Holistic View of Chondrocyte Hypertrophy. *PLoS ONE*, **2016**, 11, e0162052	3.7	12

17	Oxygen-Releasing Biomaterials: Current Challenges and Future Applications. *Trends in Biotechnology*, **2021**, 39, 1144-1159	15.1	12
16	Spatiotemporal material functionalization via competitive supramolecular complexation of avidin and biotin analogs. *Nature Communications*, **2019**, 10, 4347	17.4	11
15	Microwell Scaffolds Using Collagen-IV and Laminin-111 Lead to Improved Insulin Secretion of Human Islets. *Tissue Engineering - Part C: Methods*, **2019**, 25, 71-81	2.9	10
14	Monolithic microfluidic platform for exerting gradients of compression on cell-laden hydrogels, and application to a model of the articular cartilage. *Sensors and Actuators B: Chemical*, **2020**, 315, 127917	8.5	9
13	Dickkopf-related protein 1 and gremlin 1 show different response than frizzled-related protein in human synovial fluid following knee injury and in patients with osteoarthritis. *Osteoarthritis and Cartilage*, **2018**, 26, 834-843	6.2	8
12	On-the-fly exchangeable microfluidic nozzles for facile production of various monodisperse micromaterials. *Lab on A Chip*, **2019**, 19, 1977-1984	7.2	6
11	Enzymatic outside-in cross-linking enables single-step microcapsule production for high-throughput three-dimensional cell microaggregate formation. *Materials Today Bio*, **2020**, 6, 100047	9.9	6
10	Fibronectin and Collagen IV Microcontact Printing Improves Insulin Secretion by INS1E Cells. *Tissue Engineering - Part C: Methods*, **2018**, 24, 628-636	2.9	5
9	Tethering Cells via Enzymatic Oxidative Crosslinking Enables Mechanotransduction in Non-Cell-Adhesive Materials. *Advanced Materials*, **2021**, 33, e2102660	24	3
8	Tissue Engineering: Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs (Adv. Funct. Mater. 12/2017). *Advanced Functional Materials*, **2017**, 27,	15.6	2
7	Self-Oxygenation of Tissues Orchestrates Full-Thickness Vascularization of Living Implants.. *Advanced Functional Materials*, **2021**, 31, 2100850	15.6	2
6	In vitro degradation profiles and in vivo biomaterial-tissue interactions of microwell array delivery devices. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2021**, 109, 117-127	3.5	2
5	Organ-On-A-Chip: Biomechanical Strain Exacerbates Inflammation on a Progeria-on-a-Chip Model (Small 15/2017). *Small*, **2017**, 13,	11	1
4	3D Printed Tissues: 3D Printed Cartilage-Like Tissue Constructs with Spatially Controlled Mechanical Properties (Adv. Funct. Mater. 51/2019). *Advanced Functional Materials*, **2019**, 29, 1970350	15.6	1
3	Enzyme-mediated Alleviation of Peroxide Toxicity in Self-oxygenating Biomaterials.. *Advanced Healthcare Materials*, **2022**, e2102697	10.1	0
2	Scalable fabrication, compartmentalization and applications of living microtissues.. *Bioactive Materials*, **2023**, 19, 392-405	16.7	0
1	Tethering Cells via Enzymatic Oxidative Crosslinking Enables Mechanotransduction in Non-Cell-Adhesive Materials (Adv. Mater. 42/2021). *Advanced Materials*, **2021**, 33, 2170333	24	