

Jeroen Leijten

List of Publications by Year in descending order

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75
papers

4,024
citations

101543

36
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123424

61
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80
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80
docs citations

80
times ranked

6467
citing authors

#	ARTICLE	IF	CITATIONS
1	Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs. <i>Advanced Functional Materials</i> , 2017, 27, 1605352.	14.9	278
2	Trophic Effects of Mesenchymal Stem Cells Increase Chondrocyte Proliferation and Matrix Formation. <i>Tissue Engineering - Part A</i> , 2011, 17, 1425-1436.	3.1	259
3	Trophic Effects of Mesenchymal Stem Cells in Tissue Regeneration. <i>Tissue Engineering - Part B: Reviews</i> , 2017, 23, 515-528.	4.8	196
4	Integrin-Mediated Interactions Control Macrophage Polarization in 3D Hydrogels. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700289.	7.6	169
5	Spatially and temporally controlled hydrogels for tissue engineering. <i>Materials Science and Engineering Reports</i> , 2017, 119, 1-35.	31.8	151
6	Gene expression profiling of dedifferentiated human articular chondrocytes in monolayer culture. <i>Osteoarthritis and Cartilage</i> , 2013, 21, 599-603.	1.3	147
7	Structural analysis of photocrosslinkable methacryloyl-modified protein derivatives. <i>Biomaterials</i> , 2017, 139, 163-171.	11.4	140
8	Cardiovascular Organ-on-a-Chip Platforms for Drug Discovery and Development. <i>Applied in Vitro Toxicology</i> , 2016, 2, 82-96.	1.1	124
9	Gremlin 1, Frizzled-related protein, and Dkk1 are key regulators of human articular cartilage homeostasis. <i>Arthritis and Rheumatism</i> , 2012, 64, 3302-3312.	6.7	119
10	Metabolic programming of mesenchymal stromal cells by oxygen tension directs chondrogenic cell fate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13954-13959.	7.1	104
11	Optimizing cell viability in droplet-based cell deposition. <i>Scientific Reports</i> , 2015, 5, 11304.	3.3	87
12	High throughput generated micro-aggregates of chondrocytes stimulate cartilage formation in vitro and in vivo. , 2012, 23, 387-399.		85
13	Single Cell Microgel Based Modular Bioinks for Uncoupled Cellular Micro- and Macroenvironments. <i>Advanced Healthcare Materials</i> , 2017, 6, 1600913.	7.6	84
14	Ocular adhesives: Design, chemistry, crosslinking mechanisms, and applications. <i>Biomaterials</i> , 2019, 197, 345-367.	11.4	84
15	Platelet-Rich Blood Derivatives for Stem Cell-Based Tissue Engineering and Regeneration. <i>Current Stem Cell Reports</i> , 2016, 2, 33-42.	1.6	82
16	Oxygen-Generating Photo-Cross-Linkable Hydrogels Support Cardiac Progenitor Cell Survival by Reducing Hypoxia-Induced Necrosis. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 1964-1971.	5.2	82
17	The effect of platelet lysate supplementation of a dextran-based hydrogel on cartilage formation. <i>Biomaterials</i> , 2012, 33, 3651-3661.	11.4	76
18	Biomechanical Strain Exacerbates Inflammation on a Progeria-on-a-Chip Model. <i>Small</i> , 2017, 13, 1603737.	10.0	75

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19	GREM1, FRZB and DKK1 mRNA levels correlate with osteoarthritis and are regulated by osteoarthritis-associated factors. <i>Arthritis Research and Therapy</i> , 2013, 15, R126.	3.5	74
20	Nanostructured Fibrous Membranes with Rose Spike-Like Architecture. <i>Nano Letters</i> , 2017, 17, 6235-6240.	9.1	72
21	3D Printed Cartilage-Like Tissue Constructs with Spatially Controlled Mechanical Properties. <i>Advanced Functional Materials</i> , 2019, 29, 1906330.	14.9	66
22	Cell Sources for Articular Cartilage Repair Strategies: Shifting from Monocultures to Cocultures. <i>Tissue Engineering - Part B: Reviews</i> , 2013, 19, 31-40.	4.8	65
23	Fibroblast Growth Factor-1 Is a Mesenchymal Stromal Cell-Secreted Factor Stimulating Proliferation of Osteoarthritic Chondrocytes in Co-Culture. <i>Stem Cells and Development</i> , 2013, 22, 2356-2367.	2.1	64
24	Single-Cell Microgels: Technology, Challenges, and Applications. <i>Trends in Biotechnology</i> , 2018, 36, 850-865.	9.3	64
25	Advancing Tissue Engineering: A Tale of Nano-, Micro-, and Macroscale Integration. <i>Small</i> , 2016, 12, 2130-2145.	10.0	62
26	Ultrahigh-Throughput Production of Monodisperse and Multifunctional Janus Microparticles Using in-Air Microfluidics. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 23433-23438.	8.0	56
27	High-throughput approaches for screening and analysis of cell behaviors. <i>Biomaterials</i> , 2018, 153, 85-101.	11.4	52
28	Centering Single Cells in Microgels via Delayed Crosslinking Supports Long-Term 3D Culture by Preventing Cell Escape. <i>Small</i> , 2017, 13, 1603711.	10.0	49
29	Concise Review: Organ Engineering: Design, Technology, and Integration. <i>Stem Cells</i> , 2017, 35, 51-60.	3.2	48
30	Rapid and cytocompatible cell-laden silk hydrogel formation <i>via</i> riboflavin-mediated crosslinking. <i>Journal of Materials Chemistry B</i> , 2020, 8, 9566-9575.	5.8	47
31	Cell based advanced therapeutic medicinal products for bone repair: Keep it simple?. <i>Advanced Drug Delivery Reviews</i> , 2015, 84, 30-44.	13.7	45
32	Healing of a Large Long-Bone Defect through Serum-Free In-Vitro Priming of Human Periosteum-Derived Cells. <i>Stem Cell Reports</i> , 2017, 8, 758-772.	4.8	44
33	Oxygen-Releasing Biomaterials: Current Challenges and Future Applications. <i>Trends in Biotechnology</i> , 2021, 39, 1144-1159.	9.3	44
34	Cartilage Tissue Engineering. <i>Endocrine Development</i> , 2011, 21, 102-115.	1.3	43
35	From Nano to Macro: Multiscale Materials for Improved Stem Cell Culturing and Analysis. <i>Cell Stem Cell</i> , 2016, 18, 20-24.	11.1	43
36	Bioinspired seeding of biomaterials using three dimensional microtissues induces chondrogenic stem cell differentiation and cartilage formation under growth factor free conditions. <i>Scientific Reports</i> , 2016, 6, 36011.	3.3	40

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37	The matrix reloaded: the evolution of regenerative hydrogels. <i>Materials Today</i> , 2016, 19, 190-196.	14.2	39
38	Recognizing different tissues in human fetal femur cartilage by label-free Raman microspectroscopy. <i>Journal of Biomedical Optics</i> , 2012, 17, 116012.	2.6	38
39	Immune Organs and Immune Cells on a Chip: An Overview of Biomedical Applications. <i>Micromachines</i> , 2020, 11, 849.	2.9	37
40	Hypoxia Inhibits Hypertrophic Differentiation and Endochondral Ossification in Explanted Tibiae. <i>PLoS ONE</i> , 2012, 7, e49896.	2.5	36
41	Interconnectable Dynamic Compression Bioreactors for Combinatorial Screening of Cell Mechanobiology in Three Dimensions. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13293-13303.	8.0	36
42	Bioionic Liquid Conjugation as Universal Approach To Engineer Hemostatic Bioadhesives. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 38373-38384.	8.0	36
43	<i>In vivo</i> screening of extracellular matrix components produced under multiple experimental conditions implanted in one animal. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 889-898.	1.3	31
44	Engineering 3D parallelized microfluidic droplet generators with equal flow profiles by computational fluid dynamics and stereolithographic printing. <i>Lab on A Chip</i> , 2020, 20, 490-495.	6.0	31
45	A Dual Flow Bioreactor with Controlled Mechanical Stimulation for Cartilage Tissue Engineering. <i>Tissue Engineering - Part C: Methods</i> , 2013, 19, 774-783.	2.1	29
46	Nitric Oxide Mediates Crosstalk between Interleukin 1 ^β and WNT Signaling in Primary Human Chondrocytes by Reducing DKK1 and FRZB Expression. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2491.	4.1	28
47	Mimicking the Articular Joint with In Vitro Models. <i>Trends in Biotechnology</i> , 2019, 37, 1063-1077.	9.3	27
48	Monolithic microfluidic platform for exerting gradients of compression on cell-laden hydrogels, and application to a model of the articular cartilage. <i>Sensors and Actuators B: Chemical</i> , 2020, 315, 127917.	7.8	27
49	Enzymatic Crosslinking of Polymer Conjugates is Superior over Ionic or UV Crosslinking for the On-Chip Production of Cell-Laden Microgels. <i>Macromolecular Bioscience</i> , 2016, 16, 1524-1532.	4.1	25
50	Chondrocytes Cocultured with Stromal Vascular Fraction of Adipose Tissue Present More Intense Chondrogenic Characteristics Than with Adipose Stem Cells. <i>Tissue Engineering - Part A</i> , 2016, 22, 336-348.	3.1	24
51	Nanoemulsion-induced enzymatic crosslinking of tyramine-functionalized polymer droplets. <i>Journal of Materials Chemistry B</i> , 2017, 5, 4835-4844.	5.8	23
52	Spatiotemporal material functionalization via competitive supramolecular complexation of avidin and biotin analogs. <i>Nature Communications</i> , 2019, 10, 4347.	12.8	21
53	Embedded 3D Printing in Self-Healing Annealable Composites for Precise Patterning of Functionally Mature Human Neural Constructs. <i>Advanced Science</i> , 2022, 9, .	11.2	21
54	A Qualitative Model of the Differentiation Network in Chondrocyte Maturation: A Holistic View of Chondrocyte Hypertrophy. <i>PLoS ONE</i> , 2016, 11, e0162052.	2.5	19

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55	Nanomaterials for the Local and Targeted Delivery of Osteoarthritis Drugs. Journal of Nanomaterials, 2012, 2012, 1-13.	2.7	18
56	Fetal Mesenchymal Stromal Cells Differentiating towards Chondrocytes Acquire a Gene Expression Profile Resembling Human Growth Plate Cartilage. PLoS ONE, 2012, 7, e44561.	2.5	17
57	Boosting Angiogenesis and Functional Vascularization in Injectable Dextran-Hyaluronic Acid Hydrogels by Endothelial-Like Mesenchymal Stromal Cells. Tissue Engineering - Part A, 2013, 20, 131112094536009.	3.1	16
58	Self-Oxygenation of Tissues Orchestrates Full-Thickness Vascularization of Living Implants. Advanced Functional Materials, 2021, 31, 2100850.	14.9	16
59	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.	1.3	15
60	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.	2.1	14
61	Enzymatic outside-in cross-linking enables single-step microcapsule production for high-throughput three-dimensional cell microaggregate formation. Materials Today Bio, 2020, 6, 100047.	5.5	14
62	Fibronectin and Collagen IV Microcontact Printing Improves Insulin Secretion by INS1E Cells. Tissue Engineering - Part C: Methods, 2018, 24, 628-636.	2.1	12
63	Tethering Cells via Enzymatic Oxidative Crosslinking Enables Mechanotransduction in Non-Cell-Adhesive Materials. Advanced Materials, 2021, 33, e2102660.	21.0	10
64	On-the-fly exchangeable microfluidic nozzles for facile production of various monodisperse micromaterials. Lab on A Chip, 2019, 19, 1977-1984.	6.0	9
65	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.	3.4	7
66	Crosslink bio-adhesives for bronchoscopic lung volume reduction: current status and future direction. European Respiratory Review, 2021, 30, 210142.	7.1	7
67	Scalable fabrication, compartmentalization and applications of living microtissues. Bioactive Materials, 2023, 19, 392-405.	15.6	4
68	Tissue Engineering: Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs (Adv. Funct. Mater. 10/2019). Advanced Functional Materials, 2019, 29, 1970350.	14.9	3
69	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.	14.9	3
70	Enzyme-Mediated Alleviation of Peroxide Toxicity in Self-Oxygenating Biomaterials. Advanced Healthcare Materials, 2022, 11, e2102697.	7.6	3
71	Organ-on-a-Chip: Biomechanical Strain Exacerbates Inflammation on a Progeria-on-a-Chip Model (Small). Tissue Engineering - Part C: Methods, 2021, 27, 2100850.	10.0	1
72	Prolonged intra-articular retention of mesenchymal stem cells by advanced microencapsulation. Osteoarthritis and Cartilage, 2019, 27, S434.	1.3	0

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73	Injectable hydrogels functionalized with antibody fragments as intra-articular cytokine sinks neutralizing pro-catabolic cytokines. <i>Osteoarthritis and Cartilage</i> , 2021, 29, S50.	1.3	0
74	Tethering Cells via Enzymatic Oxidative Crosslinking Enables Mechanotransduction in Non-Cell Adhesive Materials (<i>Adv. Mater.</i> 42/2021). <i>Advanced Materials</i> , 2021, 33, 2170333.	21.0	0
75	OSMOLARITY-INDUCED ALTERED INTRACELLULAR MOLECULAR CROWDING DRIVES OSTEOARTHRITIS PATHOLOGY. <i>Osteoarthritis and Cartilage</i> , 2022, 30, S24-S25.	1.3	0