Debby Gawlitta

List of Publications by Year
in descending order

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66 papers	4,466 citations	126708 33 h-index	143772 57 g-index
69 all docs	69 docs citations	69 times ranked	5985 citing authors

#	Article	IF	Citations
1	Gelatin-Methacryloyl Hydrogels: Towards Biofabrication-Based Tissue Repair. Trends in Biotechnology, 2016, 34, 394-407.	4.9	599
2	Properties of engineered vascular constructs made from collagen, fibrin, and collagenâ€“fibrin mixtures. Biomaterials, 2004, 25, 3699-3706.	5.7	276
3	Yield stress determines bioprintability of hydrogels based on gelatin-methacryloyl and gellan gum for cartilage bioprinting. Biofabrication, 2016, 8, 035003.	3.7	261
4	InÂvivo biocompatibility and biodegradation of 3D-printed porous scaffolds based on a hydroxyl-functionalized poly(Îµ-caprolactone). Biomaterials, 2012, 33, 4309-4318.	5.7	217
5	Bio-resin for high resolution lithography-based biofabrication of complex cell-laden constructs. Biofabrication, 2018, 10, 034101.	3.7	216
6	Endochondral bone formation in gelatin methacrylamide hydrogel with embedded cartilage-derived matrix particles. Biomaterials, 2015, 37, 174-182.	5.7	153
7	The Relative Contributions of Compression and Hypoxia to Development of Muscle Tissue Damage: An In Vitro Study. Annals of Biomedical Engineering, 2007, 35, 273-284.	1.3	138
8	Deep Tissue Injury: How Deep is Our Understanding?. Archives of Physical Medicine and Rehabilitation, 2008, 89, 1410-1413.	0.5	137
9	Visible Light Crossâ€Linking of Gelatin Hydrogels Offers an Enhanced Cell Microenvironment with Improved Light Penetration Depth. Macromolecular Bioscience, 2019, 19, e1900098.	2.1	127
10	In vitro induction of alkaline phosphatase levels predicts in vivo bone forming capacity of human bone marrow stromal cells. Stem Cell Research, 2014, 12, 428-440.	0.3	126
11	Covalent attachment of a three-dimensionally printed thermoplast to a gelatin hydrogel for mechanically enhanced cartilage constructs. Acta Biomaterialia, 2014, 10, 2602-2611.	4.1	123
12	Preparation and characterization of a three-dimensional printed scaffold based on a functionalized polyester for bone tissue engineering applications. Acta Biomaterialia, 2011, 7, 1999-2006.	4.1	120
13	Does Implant Coating With Antibacterial-Loaded Hydrogel Reduce Bacterial Colonization and Biofilm Formation in Vitro?. Clinical Orthopaedics and Related Research, 2014, 472, 3311-3323.	0.7	118
14	A Synthetic Thermosensitive Hydrogel for Cartilage Bioprinting and Its Biofunctionalization with Polysaccharides. Biomacromolecules, 2016, 17, 2137-2147.	2.6	111
15	Selection of an Optimal Antiseptic Solution for Intraoperative Irrigation. Journal of Bone and Joint Surgery - Series A, 2014, 96, 285-291.	1.4	97
16	Temporal differences in the influence of ischemic factors and deformation on the metabolism of engineered skeletal muscle. Journal of Applied Physiology, 2007, 103, 464-473.	1.2	91
17	Three-Dimensional Bioprinting and Its Potential in the Field of Articular Cartilage Regeneration. Cartilage, 2017, 8, 327-340.	1.4	90
18	Scaffold Porosity and Oxygenation of Printed Hydrogel Constructs Affect Functionality of Embedded Osteogenic Progenitors. Tissue Engineering - Part A, 2011, 17, 2473-2486.	1.6	86

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19	Development of a thermosensitive HAMA-containing bio-ink for the fabrication of composite cartilage repair constructs. Biofabrication, 2017, 9, 015026.	3.7	85
20	Modulating Endochondral Ossification of Multipotent Stromal Cells for Bone Regeneration. Tissue Engineering - Part B: Reviews, 2010, 16, 385-395.	2.5	82
21	Heterotypic Scaffold Design Orchestrates Primary Cell Organization and Phenotypes in Cocultured Small Diameter Vascular Grafts. Advanced Functional Materials, 2019, 29, 1905987.	7.8	82
22	Bio-ink development for three-dimensional bioprinting of hetero-cellular cartilage constructs. Connective Tissue Research, 2020, 61, 137-151.	1.1	78
23	Direct Cellâ€“Cell Contact with Chondrocytes Is a Key Mechanism in Multipotent Mesenchymal Stromal Cell-Mediated Chondrogenesis. Tissue Engineering - Part A, 2015, 21, 2536-2547.	1.6	70
24	A Versatile Biosynthetic Hydrogel Platform for Engineering of Tissue Analogues. Advanced Healthcare Materials, 2019, 8, e1900979.	3.9	69
25	Hypoxia Impedes Hypertrophic Chondrogenesis of Human Multipotent Stromal Cells. Tissue Engineering - Part A, 2012, 18, 1957-1966.	1.6	68
26	Decellularized Cartilage-Derived Matrix as Substrate for Endochondral Bone Regeneration. Tissue Engineering - Part A, 2015, 21, 694-703.	1.6	61
27	The free diffusion of macromolecules in tissue-engineered skeletal muscle subjected to large compression strains. Journal of Biomechanics, 2008, 41, 845-853.	0.9	52
28	Zonal Chondrocyte Subpopulations Reacquire Zone-Specific Characteristics during in Vitro Redifferentiation. American Journal of Sports Medicine, 2009, 37, 97-104.	1.9	45
29	The Influence of Serum-Free Culture Conditions on Skeletal Muscle Differentiation in a Tissue-Engineered Model. Tissue Engineering - Part A, 2008, 14, 161-171.	1.6	44
30	Layer-specific cell differentiation in bi-layered vascular grafts under flow perfusion. Biofabrication, 2020, 12, 015009.	3.7	43
31	Engineering of a complex bone tissue model with endothelialised channels and capillary-like networks. , 2018, 35, 335-349.		40
32	High-resolution lithographic biofabrication of hydrogels with complex microchannels from low-temperature-soluble gelatin bioresins. Materials Today Bio, 2021, 12, 100162.	2.6	38
33	The impact of immune response on endochondral bone regeneration. Npj Regenerative Medicine, 2018, 3, 22.	2.5	37
34	Flow-perfusion interferes with chondrogenic and hypertrophic matrix production by mesenchymal stem cells. Journal of Biomechanics, 2014, 47, 2122-2129.	0.9	35
35	Multipotent Stromal Cells Outperform Chondrocytes on Cartilage-Derived Matrix Scaffolds. Cartilage, 2014, 5, 221-230.	1.4	30
36	Hyaluronic Acid-Based Hydrogel Coating Does Not Affect Bone Apposition at the Implant Surface in a Rabbit Model. Clinical Orthopaedics and Related Research, 2017, 475, 1911-1919.	0.7	28

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37	Development and Characterization of Gelatinâ€Norbornene Bioink to Understand the Interplay between Physical Architecture and Microâ€Capillary Formation in Biofabricated Vascularized Constructs. Advanced Healthcare Materials, 2022, 11, e2101873.	3.9	28
38	Taking the endochondral route to craniomaxillofacial bone regeneration: A logical approach?. Journal of Cranio-Maxillo-Facial Surgery, 2017, 45, 1099-1106.	0.7	27
39	Three-dimensional assembly of tissue-engineered cartilage constructs results in cartilaginous tissue formation without retainment of zonal characteristics. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 315-324.	1.3	26
40	Evaluation of a Continuous Quantification Method of Apoptosis and Necrosis in Tissue Cultures. Cytotechnology, 2004, 46, 139-150.	0.7	25
41	Ex vivo model unravelling cell distribution effect in hydrogels for cartilage repair. ALTEX: Alternatives To Animal Experimentation, 2018, 35, 65-76.	0.9	25
42	Effect of donor variation on osteogenesis and vasculogenesis in hydrogel cocultures. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 433-445.	1.3	24
43	The chondrogenic differentiation potential of dental pulp stem cells. , 2020, 39, 121-135.		22
44	Hypoxia Impedes Vasculogenesis of In Vitro Engineered Bone. Tissue Engineering - Part A, 2012, 18, 208-218.	1.6	21
45	Intact vitreous humor as a potential extracellular matrix hydrogel for cartilage tissue engineering applications. Acta Biomaterialia, 2019, 85, 117-130.	4.1	20
46	Microstructured Î²-Tricalcium Phosphate Putty versus Autologous Bone for Repair of Alveolar Clefts in a Goat Model. Cleft Palate-Craniofacial Journal, 2017, 54, 699-706.	0.5	18
47	Complete regeneration of large bone defects in rats with commercially available fibrin loaded with BMP-2. , 2019, 38, 94-105.		18
48	Inflammation-Induced Osteogenesis in a Rabbit Tibia Model. Tissue Engineering - Part C: Methods, 2017, 23, 673-685.	1.1	17
49	The non-linear mechanical properties of soft engineered biological tissues determined by finite spherical indentation. Computer Methods in Biomechanics and Biomedical Engineering, 2008, 11, 585-592.	0.9	16
50	Missed low-grade infection in suspected aseptic loosening has no consequences for the survival of total hip arthroplasty. Monthly Notices of the Royal Astronomical Society: Letters, 2015, 86, 678-83.	1.2	16
51	Endochondral Bone Regeneration by Non-autologous Mesenchymal Stem Cells. Frontiers in Bioengineering and Biotechnology, 2020, 8, 651.	2.0	15
52	Prophylaxis of implant-related infections by local release of vancomycin from a hydrogel in rabbits. , 2020, 39, 108-120.		15
53	Impact of Endotoxins in Gelatine Hydrogels on Chondrogenic Differentiation and Inflammatory Cytokine Secretion In Vitro. International Journal of Molecular Sciences, 2020, 21, 8571.	1.8	14
54	Numerical Analysis of Ischemia- and Compression-Induced Injury in Tissue-Engineered Skeletal Muscle Constructs. Annals of Biomedical Engineering, 2010, 38, 570-582.	1.3	9

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55	Gel Casting as an Approach for Tissue Engineering of Multilayered Tubular Structures. Tissue Engineering - Part C: Methods, 2020, 26, 190-198.	1.1	9
56	Contrast enhanced computed tomography for real-time quantification of glycosaminoglycans in cartilage tissue engineered constructs. Acta Biomaterialia, 2019, 100, 202-212.	4.1	7
57	Cardiovascular Tissue Engineering and Regeneration: A Plead for Further Knowledge Convergence. Tissue Engineering - Part A, 2022, 28, 525-541.	1.6	6
58	Acceleration of Bone Regeneration Induced by a Softâ€Callus Mimetic Material. Advanced Science, 2022, 9, e2103284.	5.6	6
59	An In Vitro Model to Test the Influence of Immune Cell Secretome on Mesenchymal Stromal Cell Osteogenic Differentiation. Tissue Engineering - Part C: Methods, 2022, 28, 420-430.	1.1	5
60	The Influence of Serum-Free Culture Conditions on Skeletal Muscle Differentiation in a Tissue-Engineered Model. Tissue Engineering, 2008, 14, 161-171.	4.9	2
61	52. Calcium phosphates with submicron topography enhance human macrophage M2 polarization in vitro. Spine Journal, 2020, 20, S25.	0.6	1
62	The hunt for a replenishable MSC source to create (genetically manipulatable) ectopic human hematopoietic bone marrow niches. Experimental Hematology, 2013, 41, S66.	0.2	0
63	Donor dependence in stem cell-based generation of prevascularized bone tissue constructs. International Journal of Oral and Maxillofacial Surgery, 2015, 44, e250.	0.7	0
64	Gel casting as an approach for tissue engineering of multilayered tubular structures: Application for urethral reconstruction. European Urology Supplements, 2018, 17, e396-e397.	0.1	0
65	Ischemic Factors and Deformation Influence Metabolism of Engineered Skeletal Muscle. , 2007, , .		0
66	In Vitro Muscle Model Studies. , 2005, , 287-300.		0