Nic D Leipzig

List of Publications by Year
in descending order

54	2,375	304368	205818
papers	citations	22 h-index	48 g-index

55	55	55	3510
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The effect of substrate stiffness on adult neural stem cell behavior. Biomaterials, 2009, 30, 6867-6878.	5.7	575
2	Differentiation of neural stem cells in three-dimensional growth factor-immobilized chitosan hydrogel scaffolds. Biomaterials, 2011, 32, 57-64.	5.7	181
3	Promoting neuron adhesion and growth. Materials Today, 2008, 11, 36-43.	8.3	147
4	Unconfined creep compression of chondrocytes. Journal of Biomechanics, 2005, 38, 77-85.	0.9	107
5	Fluorinated methacrylamide chitosan hydrogel systems as adaptable oxygen carriers for wound healing. Acta Biomaterialia, 2013, 9, 5653-5664.	4.1	95
6	InÂvivo assessment of guided neural stem cell differentiation in growth factor immobilized chitosan-based hydrogel scaffolds. Biomaterials, 2014, 35, 9049-9057.	5.7	93
7	3D Differentiation of Neural Stem Cells in Macroporous Photopolymerizable Hydrogel Scaffolds. PLoS ONE, 2012, 7, e48824.	1.1	84
8	The effect of immobilized platelet derived growth factor AA on neural stem/progenitor cell differentiation on cell-adhesive hydrogels. Biomaterials, 2008, 29, 4676-4683.	5.7	78
9	Oxygen Regulation in Development: Lessons from Embryogenesis towards Tissue Engineering. Cells Tissues Organs, 2018, 205, 350-371.	1.3	74
10	A Hydrogel Bridge Incorporating Immobilized Growth Factors and Neural Stem/Progenitor Cells to Treat Spinal Cord Injury. Advanced Healthcare Materials, 2016, 5, 802-812.	3.9	68
11	Fluorinated methacrylamide chitosan hydrogels enhance collagen synthesis in wound healing through increased oxygen availability. Acta Biomaterialia, 2016, 36, 164-174.	4.1	68
12	Short Duration Electrical Stimulation to Enhance Neurite Outgrowth and Maturation of Adult Neural Stem Progenitor Cells. Annals of Biomedical Engineering, 2014, 42, 2164-2176.	1.3	54
13	Static Compression of Single Chondrocytes Catabolically Modifies Single-Cell Gene Expression. Biophysical Journal, 2008, 94, 2412-2422.	0.2	49
14	Encapsulated Neural Stem Cell Neuronal Differentiation in Fluorinated Methacrylamide Chitosan Hydrogels. Annals of Biomedical Engineering, 2014, 42, 1456-1469.	1.3	45
15	Functional immobilization of interferonâ€gamma induces neuronal differentiation of neural stem cells. Journal of Biomedical Materials Research - Part A, 2010, 93A, 625-633.	2.1	43
16	Covalent growth factor tethering to direct neural stem cell differentiation and self-organization. Acta Biomaterialia, 2017, 53, 140-151.	4.1	40
17	Gene expression of single articular chondrocytes. Cell and Tissue Research, 2006, 327, 43-54.	1.5	35
18	Biomaterial strategies for limiting the impact of secondary events following spinal cord injury. Biomedical Materials (Bristol), 2018, 13, 024105.	1.7	33

#	Article	IF	Citations
19	The Open Source GAITOR Suite for Rodent Gait Analysis. Scientific Reports, 2018, 8, 9797.	1.6	30
20	Fluorinated Methacrylamide Chitosan Hydrogel Dressings Improve Regenerated Wound Tissue Quality in Diabetic Wound Healing. Advances in Wound Care, 2019, 8, 374-385.	2.6	28
21	Neural Regenerative Strategies Incorporating Biomolecular Axon Guidance Signals. Annals of Biomedical Engineering, 2012, 40, 578-597.	1.3	25
22	Ionically Cross-Linked Polymer Networks for the Multiple-Month Release of Small Molecules. ACS Applied Materials & Interfaces, 2016, 8, 4323-4335.	4.0	25
23	Subcutaneous priming of protein-functionalized chitosan scaffolds improves function following spinal cord injury. Materials Science and Engineering C, 2020, 110, 110656.	3.8	25
24	Fluorinated methacrylamide chitosan hydrogel dressings enhance healing in an acute porcine wound model. PLoS ONE, 2018, 13, e0203371.	1.1	24
25	Fluorinated Methacrylamide Chitosan Hydrogels Enhance Cellular Wound Healing Processes. Annals of Biomedical Engineering, 2017, 45, 2693-2702.	1.3	23
26	Thread Size and Polymer Composition of 3D Printed and Electrospun Wound Dressings Affect Wound Healing Outcomes in an Excisional Wound Rat Model. Biomacromolecules, 2020, 21, 4030-4042.	2.6	23
27	Neural stem cell encapsulation and differentiation in strain promoted crosslinked polyethylene glycol-based hydrogels. Journal of Biomaterials Applications, 2018, 32, 1222-1230.	1.2	21
28	Co-immobilization of semaphorin3A and nerve growth factor to guide and pattern axons. Acta Biomaterialia, 2015, 28, 33-44.	4.1	19
29	Specific Immobilization of Biotinylated Fusion Proteins NGF and Sema3A Utilizing a Photo-Cross-Linkable Diazirine Compound for Controlling Neurite Extension. Bioconjugate Chemistry, 2013, 24, 1515-1526.	1.8	18
30	Micropatterned Coumarin Polyester Thin Films Direct Neurite Orientation. ACS Applied Materials & Interfaces, 2014, 6, 19655-19667.	4.0	18
31	Spinal Cord Transcriptomic and Metabolomic Analysis after Excitotoxic Injection Injury Model of Syringomyelia. Journal of Neurotrauma, 2017, 34, 720-733.	1.7	18
32	Immobilized ECM molecules and the effects of concentration and surface type on the control of NSC differentiation. Journal of Biomedical Materials Research - Part A, 2014, 102, 3419-3428.	2.1	16
33	Fluorinated methacrylamide chitosan sequesters reactive oxygen species to relieve oxidative stress while delivering oxygen. Journal of Biomedical Materials Research - Part A, 2017, 105, 2368-2374.	2.1	16
34	Polyionic Complexed Antibacterial Heparinâ€“Chitosan Particles for Antibiotic Delivery. ACS Applied Bio Materials, 2019, 2, 5848-5858.	2.3	16
35	Encapsulation and release of Zafirlukast from electrospun polyisobutylene-based thermoplastic elastomeric fiber mat. European Polymer Journal, 2018, 98, 254-261.	2.6	15
36	Evaluation of in situ gelling chitosan-PEG copolymer for use in the spinal cord. Journal of Biomaterials Applications, 2018, 33, 435-446.	1.2	15

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37	Subcutaneous Maturation of Neural Stem Cell-Loaded Hydrogels Forms Region-Specific Neuroepithelium. Cells, 2018, 7, 173.	1.8	13
38	Automated Gait Analysis Detects Improvements after Intracellular Ïƒ Peptide Administration in a Rat Hemisection Model of Spinal Cord Injury. Annals of Biomedical Engineering, 2019, 47, 744-753.	1.3	12
39	Immobilized ECM molecules and the effects of concentration and surface type on the control of NSC differentiation. Journal of Biomedical Materials Research - Part A, 2013, 102, n/a-n/a.	2.1	12
40	pH-dependent RNA isolation from cells encapsulated in chitosan-based biomaterials. International Journal of Biological Macromolecules, 2020, 146, 422-430.	3.6	10
41	Generation of Oxygenating Fluorinated Methacrylamide Chitosan Microparticles to Increase Cell Survival and Function in Large Liver Spheroids. ACS Applied Materials & Interfaces, 2022, 14, 4899-4913.	4.0	9
42	Confirmation of predicted activity for factor XIa inhibitors from a virtual screening approach. AICHE Journal, 2014, 60, 2741-2746.	1.8	8
43	Micro-computed tomography utility for estimation of intraparenchymal spinal cord cystic lesions in small animals. Neural Regeneration Research, 2021, 16, 2293.	1.6	8
44	Central Nervous System Tissue Engineering: Current Considerations and Strategies. Synthesis Lectures on Tissue Engineering, 2011, 3, 1-120.	0.3	7
45	Metabolomic and Signaling Programs Induced by Immobilized versus Soluble IFN Î³ in Neural Stem Cells. Bioconjugate Chemistry, 2020, 31, 2125-2135.	1.8	7
46	Expression, Isolation, and Purification of Soluble and Insoluble Biotinylated Proteins for Nerve Tissue Regeneration. Journal of Visualized Experiments, 2014, , e51295.	0.2	6
47	Fluorinated Chitosan Microgels to Overcome Internal Oxygen Transport Deficiencies in Microtissue Culture Systems. Advanced Biology, 2020, 4, e1900250.	3.0	6
48	Softening of the chronic hemi-section spinal cord injury scar parallels dysregulation of cellular and extracellular matrix content. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103953.	1.5	6
49	Advances in removing mass transport limitations for more physiologically relevant in vitro 3D cell constructs. Biophysics Reviews, 2021, 2, .	1.0	6
50	Osmoregulatory Role of Betaine and Betaine/Î³-Aminobutyric Acid Transporter 1 in Post-Traumatic Syringomyelia. ACS Chemical Neuroscience, 2021, 12, 3567-3578.	1.7	6
51	Concurrent Delivery of Soluble and Immobilized Proteins to Recruit and Differentiate Neural Stem Cells. Biomacromolecules, 2019, 20, 3445-3452.	2.6	4
52	Covalently Immobilizing Interferon-Î³ Drives Filopodia Production through Specific Receptorâ€“Ligand Interactions Independently of Canonical Downstream Signaling. Bioconjugate Chemistry, 2020, 31, 1362-1369.	1.8	4
53	Detection of locomotion deficit in a post-traumatic syringomyelia rat model using automated gait analysis technique. PLoS ONE, 2021, 16, e0252559.	1.1	4
54	Investigating Mechanisms of Subcutaneous Preconditioning Incubation for Neural Stem Cell Embedded Hydrogels. ACS Applied Bio Materials, 2022, 5, 2176-2184.	2.3	3