Sing Yian Chew

List of Publications by Year
in descending order

91 papers	5,738 citations	109264 35 h-index	76872 74 g-index
96 all docs	96 docs citations	96 times ranked	7332 citing authors

#	Article	IF	Citations
1	Cellular Features Revealed by Transverse Laser Modes in Frequency Domain (Adv. Sci. 1/2022). Advanced Science, 2022, 9, 2270014.	5.6	0
2	Delivery of Wnt inhibitor WIF1 via engineered polymeric microspheres promotes nerve regeneration after sciatic nerve crush. Journal of Tissue Engineering, 2022, 13, 204173142210874.	2.3	4
3	Bio-Mimicking Acellular Wet Electrospun Scaffolds Promote Accelerated Integration and Re-Epithelialization of Full-Thickness Dermal Wounds. Bioengineering, 2022, 9, 324.	1.6	1
4	Oriented and sustained protein expression on biomimicking electrospun fibers for evaluating functionality of cells. Materials Science and Engineering C, 2021, 118, 111407.	3.8	2
5	Injectable hydrogels in stroke and spinal cord injury treatment: a review on hydrogel materials, cellâ€“matrix interactions and glial involvement. Materials Advances, 2021, 2, 2561-2583.	2.6	18
6	Cell Membrane-Coated Electrospun Fibers Enhance Keratinocyte Growth through Cell-Type Specific Interactions. ACS Applied Bio Materials, 2021, 4, 4079-4083.	2.3	5
7	Rehabilitation Robotic System with Forelimb-Hindlimb Phase synchronization in Rats with Spinal Cord Injury. , 2021, , .		0
8	A 3D Fiberâ€Hydrogel Based Nonâ€Viral Gene Delivery Platform Reveals that microRNAs Promote Axon Regeneration and Enhance Functional Recovery Following Spinal Cord Injury. Advanced Science, 2021, 8, e2100805.	5.6	42
9	Phase Learning to Extract Phase from Forelimb(s) and Hindlimb(s) Movement in Real Time. , 2021, , .		1
10	Mechanotransduction assays for neural regeneration strategies: A focus on glial cells. APL Bioengineering, 2021, 5, 021505.	3.3	16
11	Rac1-GTPase regulates compression-induced actin protrusions (CAPs) of mesenchymal stem cells in 3D collagen micro-tissues. Biomaterials, 2021, 274, 120829.	5.7	4
12	Scaffold-Based Delivery of CRISPR/Cas9 Ribonucleoproteins for Genome Editing. Methods in Molecular Biology, 2021, 2211, 183-191.	0.4	2
13	Cellular Features Revealed by Transverse Laser Modes in Frequency Domain. Advanced Science, 2021, , 2103550.	5.6	5
14	Neural Cell Membrane-Coated Nanoparticles for Targeted and Enhanced Uptake by Central Nervous System Cells. ACS Applied Materials & Interfaces, 2021, 13, 55840-55850.	4.0	13
15	Modulating Macrophage Phenotype by Sustained MicroRNA Delivery Improves Hostâ€Implant Integration. Advanced Healthcare Materials, 2020, 9, e1901257.	3.9	16
16	Codelivery of CRISPR-Cas9 and chlorin e6 for spatially controlled tumor-specific gene editing with synergistic drug effects. Science Advances, 2020, 6, eabb4005.	4.7	106
17	RNA interference in glial cells for nerve injury treatment. Journal of Tissue Engineering, 2020, 11, 204173142093922.	2.3	8
18	Biomimicking Fiber Platform with Tunable Stiffness to Study Mechanotransduction Reveals Stiffness Enhances Oligodendrocyte Differentiation but Impedes Myelination through YAPâ€Dependent Regulation. Small, 2020, 16, e2003656.	5.2	25

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19	A laser microdissection-based axotomy model incorporating the use of biomimicking fiber scaffolds reveals that microRNAs promote axon regeneration over long injury distances. Biomaterials Science, 2020, 8, 6286-6300.	2.6	2
20	Biofunctional scaffolds with high packing density of aligned electrospun fibers support neural regeneration. Journal of Biomedical Materials Research - Part A, 2020, 108, 2473-2483.	2.1	5
21	Localized delivery of CRISPR/dCas9 via layer-by-layer self-assembling peptide coating on nanofibers for neural tissue engineering. Biomaterials, 2020, 256, 120225.	5.7	32
22	Effects of miR-219/miR-338 on microglia and astrocyte behaviors and astrocyte-oligodendrocyte precursor cell interactions. Neural Regeneration Research, 2020, 15, 739.	1.6	21
23	Development of a Novel Force Sensing System to Measure the Ground Reaction Force of Rats with Complete Spinal Cord Injury. , 2019, , .		1
24	Modulation of cell-cell interactions for neural tissue engineering: Potential therapeutic applications of cell adhesion molecules in nerve regeneration. Biomaterials, 2019, 197, 327-344.	5.7	39
25	In vitro and in vivo evaluation of an electrospun-aligned microfibrous implant for Annulus fibrosus repair. Biomaterials, 2019, 205, 81-93.	5.7	66
26	Scaffold-mediated sequential drug/gene delivery to promote nerve regeneration and remyelination following traumatic nerve injuries. Advanced Drug Delivery Reviews, 2019, 149-150, 19-48.	6.6	31
27	Biomimicking Fiber Scaffold as an Effective In Vitro and In Vivo MicroRNA Screening Platform for Directing Tissue Regeneration. Advanced Science, 2019, 6, 1800808.	5.6	26
28	Scaffold-mediated non-viral delivery platform for CRISPR/Cas9-based genome editing. Acta Biomaterialia, 2019, 90, 60-70.	4.1	34
29	Drug therapies and delivery mechanisms to treat perturbed skin wound healing. Advanced Drug Delivery Reviews, 2019, 149-150, 2-18.	6.6	110
30	Automatic Inference of Ratâ€™s Hindlimb Trajectory to Synchronize with Forelimb Gait Through Phase. , 2019, 2019, 4615-4618.		2
31	Regenerative rehabilitation: exploring the synergistic effects of rehabilitation and implantation of a bio-functional scaffold in enhancing nerve regeneration. Biomaterials Science, 2019, 7, 5150-5160.	2.6	11
32	Sequential drug/gene delivery in tissue engineering & regenerative medicine. Advanced Drug Delivery Reviews, 2019, 149-150, 1.	6.6	5
33	Localised non-viral delivery of nucleic acids for nerve regeneration in injured nervous systems. Experimental Neurology, 2019, 319, 112820.	2.0	11
34	Scaffold-Mediated Sustained, Non-viral Delivery of miR-219/miR-338 Promotes CNS Remyelination. Molecular Therapy, 2019, 27, 411-423.	3.7	44
35	A Developmental Rehabilitation Robotic System for a Rat With Complete Thoracic Spinal Cord Injury in Quadruped Posture. IEEE Robotics and Automation Letters, 2018, 3, 2109-2115.	3.3	8
36	3D neural tissue models: From spheroids to bioprinting. Biomaterials, 2018, 154, 113-133.	5.7	207

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37	Targeting Cx26 Expression by Sustained Release of Cx26 Antisense from Scaffolds Reduces Inflammation and Improves Wound Healing. Advanced Biology, 2018, 2, 1800227.	3.0	4
38	Scaffold mediated gene knockdown for neuronal differentiation of human neural progenitor cells. Biomaterials Science, 2018, 6, 3019-3029.	2.6	14
39	Exploring new treatment for spinalized rats by synergising robotic rehabilitation system and regenerative medicine. , 2018, 2018, 4205-4208.		6
40	Design and evaluation of electrospun structured biomaterials for Annulus fibrosus repair. Osteoarthritis and Cartilage, 2018, 26, S424.	0.6	0
41	Mechanical Strain Alters Cellular and Nuclear Dynamics at Early Stages of Oligodendrocyte Differentiation. Frontiers in Cellular Neuroscience, 2018, 12, 59.	1.8	17
42	Microfiber drug/gene delivery platform for study of myelination. Acta Biomaterialia, 2018, 75, 152-160.	4.1	21
43	Sustained delivery of siRNA/mesoporous silica nanoparticle complexes from nanofiber scaffolds for long-term gene silencing. Acta Biomaterialia, 2018, 76, 164-177.	4.1	84
44	Three-dimensional aligned nanofibers-hydrogel scaffold for controlled non-viral drug/gene delivery to direct axon regeneration in spinal cord injury treatment. Scientific Reports, 2017, 7, 42212.	1.6	141
45	Stimuli-responsive multifunctional glyconanoparticle platforms for targeted drug delivery and cancer cell imaging. Chemical Science, 2017, 8, 3980-3988.	3.7	38
46	Design and evaluation of electrospun structured biomaterials for Annulus fibrosus regeneration. Osteoarthritis and Cartilage, 2017, 25, S403-S404.	0.6	1
47	Raman spectroscopy for discrimination of neural progenitor cells and their lineages (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 0		
48	Three-Dimensional Nanofiber Hybrid Scaffold Directs and Enhances Axonal Regeneration after Spinal Cord Injury. ACS Biomaterials Science and Engineering, 2016, 2, 1319-1329.	2.6	40
49	Highly Fluorescent and Photostable Polymeric Nanofibers as Scaffolds for Cell Interfacing and Longâ€Term Tracking. Advanced Healthcare Materials, 2016, 5, 529-533.	3.9	18
50	Musselâ€Inspired Modification of Nanofibers for REST siRNA Delivery: Understanding the Effects of Geneâ€Silencing and Substrate Topography on Human Mesenchymal Stem Cell Neuronal Commitment. Macromolecular Bioscience, 2015, 15, 1457-1468.	2.1	31
51	MicroRNAs and their potential therapeutic applications in neural tissue engineering. Advanced Drug Delivery Reviews, 2015, 88, 53-66.	6.6	26
52	Nanofiber-mediated microRNA delivery to enhance differentiation and maturation of oligodendroglial precursor cells. Journal of Controlled Release, 2015, 208, 85-92.	4.8	57
53	Protrusive waves guide 3D cell migration along nanofibers. Journal of Cell Biology, 2015, 211, 683-701.	2.3	73
54	MicroRNAs in tissue engineering & regenerative medicine. Advanced Drug Delivery Reviews, 2015, 88, 1-2.	6.6	6

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55	Topographical effects on fiber-mediated microRNA delivery to control oligodendroglial precursor cells development. Biomaterials, 2015, 70, 105-114.	5.7	56
56	Molecular beacon-loaded polymeric nanoparticles for non-invasive imaging of mRNA expression. Journal of Materials Chemistry B, 2015, 3, 6148-6156.	2.9	22
57	Polysaccharide nanofibers with variable compliance for directing cell fate. Journal of Biomedical Materials Research - Part A, 2015, 103, 959-968.	2.1	15
58	Nanofiber-mediated release of retinoic acid and brain-derived neurotrophic factor for enhanced neuronal differentiation of neural progenitor cells. Drug Delivery and Translational Research, 2015, 5, 89-100.	3.0	23
59	The effects of nanofiber diameter and orientation on siRNA uptake and gene silencing. Biomaterials, 2015, 37, 94-106.	5.7	32
60	Nanofibrous nerve conduit-enhanced peripheral nerve regeneration. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 377-385.	1.3	68
61	Polysaccharide electrospun fibers with sulfated poly(fucose) promote endothelial cell migration and VEGF-mediated angiogenesis. Biomaterials Science, 2014, 2, 843-852.	2.6	35
62	Combining cell sheet technology and electrospun scaffolding for engineered tubular, aligned, and contractile blood vessels. Biomaterials, 2014, 35, 2713-2719.	5.7	101
63	Controlling fibrous capsule formation through long-term down-regulation of collagen type I (COL1A1) expression by nanofiber-mediated siRNA gene silencing. Acta Biomaterialia, 2013, 9, 4513-4524.	4.1	83
64	Nanofibrous scaffold-mediated REST knockdown to enhance neuronal differentiation of stem cells. Biomaterials, 2013, 34, 3581-3590.	5.7	90
65	Impact of Endothelial Cells on 3D Cultured Smooth Muscle Cells in a Biomimetic Hydrogel. ACS Applied Materials & Interfaces, 2012, 4, 1378-1387.	4.0	31
66	Directing Neuronal Differentiation of Primary Neural Progenitor Cells by Gene Knockdown Approach. DNA and Cell Biology, 2012, 31, 1148-1160.	0.9	17
67	Nanofibrous Collagen Nerve Conduits for Spinal Cord Repair. Tissue Engineering - Part A, 2012, 18, 1057-1066.	1.6	121
68	The Effects of Nanofiber Topography on Astrocyte Behavior and Gene Silencing Efficiency. Macromolecular Bioscience, 2012, 12, 666-674.	2.1	24
69	Nanofiber topography and sustained biochemical signaling enhance human mesenchymal stem cell neural commitment. Acta Biomaterialia, 2012, 8, 1290-1302.	4.1	111
70	Directing stem cell fate by controlled RNA interference. Biomaterials, 2012, 33, 2608-2628.	5.7	76
71	Sustained release of neurotrophinâ€3 and chondroitinase ABC from electrospun collagen nanofiber scaffold for spinal cord injury repair. Journal of Biomedical Materials Research - Part A, 2012, 100A, 236-242.	2.1	86
72	Biomimicking Polysaccharide Nanofibers Promote Vascular Phenotypes: A Potential Application for Vascular Tissue Engineering. Macromolecular Bioscience, 2012, 12, 395-401.	2.1	21

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73	Long-Term Stabilization of Polysaccharide Electrospun Fibres by In Situ Cross-Linking. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 1459-1472.	1.9	21
74	Nanofibrous scaffold with incorporated protein gradient for directing neurite outgrowth. Drug Delivery and Translational Research, 2011, 1, 147-160.	3.0	17
75	Scaffoldâ€based approach to direct stem cell neural and cardiovascular differentiation: An analysis of physical and biochemical effects. Journal of Biomedical Materials Research - Part A, 2011, 97A, 355-374.	2.1	29
76	Nanofiber-mediated controlled release of siRNA complexes for long term gene-silencing applications. Biomaterials, 2011, 32, 5915-5923.	5.7	127
77	The topographical effect of electrospun nanofibrous scaffolds on the in vivo and in vitro foreign body reaction. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1151-1159.	2.1	155
78	RNA interference by nanofiber-based siRNA delivery system. Journal of Controlled Release, 2010, 144, 203-212.	4.8	128
79	Photochemical crosslinked electrospun collagen nanofibers: Synthesis, characterization and neural stem cell interactions. Journal of Biomedical Materials Research - Part A, 2010, 95A, 276-282.	2.1	90
80	Current applications and future perspectives of artificial nerve conduits. Experimental Neurology, 2010, 223, 86-101.	2.0	337
81	Nanofibers in regenerative medicine and drug delivery. Advanced Drug Delivery Reviews, 2009, 61, 987.	6.6	7
82	The application of nanofibrous scaffolds in neural tissue engineering. Advanced Drug Delivery Reviews, 2009, 61, 1055-1064.	6.6	319
83	The effect of the alignment of electrospun fibrous scaffolds on Schwann cell maturation. Biomaterials, 2008, 29, 653-661.	5.7	467
84	A Survey of Selected Recent Theses Relevant to Combating Aging. Rejuvenation Research, 2007, 10, 245-252.	0.9	12
85	Aligned Protein-Polymer Composite Fibers Enhance Nerve Regeneration: A Potential Tissue-Engineering Platform. Advanced Functional Materials, 2007, 17, 1288-1296.	7.8	332
86	Aligned coreâ€“shell nanofibers delivering bioactive proteins. Nanomedicine, 2006, 1, 465-471.	1.7	183
87	Mechanical properties of single electrospun drug-encapsulated nanofibres. Nanotechnology, 2006, 17, 3880-3891.	1.3	179
88	The Role of Electrospinning in the Emerging Field of Nanomedicine. Current Pharmaceutical Design, 2006, 12, 4751-4770.	0.9	249
89	Sustained Release of Proteins from Electrospun Biodegradable Fibers. Biomacromolecules, 2005, 6, 2017-2024.	2.6	527
90	On the effects of secondary phase on thermal conductivity of AlN ceramic substrates using a microstructural modeling approach. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 335, 281-289.	2.6	36

#	Article	IF	Citations
91	Brain Cell Laser Powered by Deepâ€Learningâ€Enhanced Laser Modes. Advanced Optical Materials, 0, , 2101421.	3.6	5