James B Phillips

List of Publications by Year
in descending order

98 papers	2,981 citations	147566 31 h-index	182168 51 g-index
99 all docs	99 docs citations	99 times ranked	3868 citing authors

#	Article	IF	Citations
1	Engineered neural tissue with aligned, differentiated adipose-derived stem cells promotes peripheral nerve regeneration across a critical sized defect in rat sciatic nerve. Biomaterials, 2015, 37, 242-251.	5.7	186
2	Engineered neural tissue for peripheral nerve repair. Biomaterials, 2013, 34, 7335-7343.	5.7	185
3	Human dental pulp stem cells can differentiate into Schwann cells and promote and guide neurite outgrowth in an aligned tissueâ€engineered collagen construct<i>in vitro</i>. FASEB Journal, 2014, 28, 1634-1643.	0.2	162
4	Neural Tissue Engineering: A Self-Organizing Collagen Guidance Conduit. Tissue Engineering, 2005, 11, 1611-1617.	4.9	134
5	Cell Responses to Biomimetic Protein Scaffolds Used in Tissue Repair and Engineering. International Review of Cytology, 2007, 262, 75-150.	6.2	123
6	Glucose-Coated Gold Nanoparticles Transfer across Human Brain Endothelium and Enter Astrocytes In Vitro. PLoS ONE, 2013, 8, e81043.	1.1	122
7	Alignment of Astrocytes Increases Neuronal Growth in Three-Dimensional Collagen Gels and Is Maintained Following Plastic Compression to Form a Spinal Cord Repair Conduit. Tissue Engineering - Part A, 2010, 16, 3173-3184.	1.6	100
8	A versatile 3D culture model facilitates monitoring of astrocytes undergoing reactive gliosis. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 634-646.	1.3	90
9	Engineered neural tissue with Schwann cell differentiated human dental pulp stem cells: potential for peripheral nerve repair?. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 3362-3372.	1.3	82
10	Peripheral nerves in the rat exhibit localized heterogeneity of tensile properties during limb movement. Journal of Physiology, 2004, 557, 879-887.	1.3	78
11	Vascularization Strategies for Peripheral Nerve Tissue Engineering. Anatomical Record, 2018, 301, 1657-1667.	0.8	70
12	Antioxidant Inhibitors Potentiate the Cytotoxicity of Photodynamic Therapy. Photochemistry and Photobiology, 2012, 88, 175-187.	1.3	64
13	Characterization of non-neuronal elements within fibronectin mats implanted into the damaged adult rat spinal cord. Biomaterials, 2006, 27, 485-496.	5.7	62
14	The six most essential questions in psychiatric diagnosis: a pluralogue part 1: conceptual and definitional issues in psychiatric diagnosis. Philosophy, Ethics, and Humanities in Medicine, 2012, 7, 3.	0.7	50
15	Using Stem Cells to Grow Artificial Tissue for Peripheral Nerve Repair. Stem Cells International, 2016, 2016, 1-18.	1.2	49
16	Stabilization, Rolling, and Addition of Other Extracellular Matrix Proteins to Collagen Hydrogels Improve Regeneration in Chitosan Guides for Long Peripheral Nerve Gaps in Rats. Neurosurgery, 2017, 80, 465-474.	0.6	49
17	Schwann cells and mesenchymal stem cells in laminin- or fibronectin-aligned matrices and regeneration across a critical size defect of 15 mm in the rat sciatic nerve. Journal of Neurosurgery: Spine, 2018, 28, 109-118.	0.9	48
18	Fluid shear in viscous fibronectin gels allows aggregation of fibrous materials for CNS tissue engineering. Biomaterials, 2004, 25, 2769-2779.	5.7	46

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19	Targeting tumour energy metabolism potentiates the cytotoxicity of 5-aminolevulinic acid photodynamic therapy. British Journal of Cancer, 2013, 109, 976-982.	2.9	44
20	An allogeneic â€˜off the shelfâ€™ therapeutic strategy for peripheral nerve tissue engineering using clinical grade human neural stem cells. Scientific Reports, 2018, 8, 2951.	1.6	43
21	An Optimized Collagen-Fibrin Blend Engineered Neural Tissue Promotes Peripheral Nerve Repair. Tissue Engineering - Part A, 2018, 24, 1332-1340.	1.6	42
22	Mechanical Response of Neural Cells to Physiologically Relevant Stiffness Gradients. Advanced Healthcare Materials, 2020, 9, e1901036.	3.9	41
23	The neuroprotective effects of fibronectin mats and fibronectin peptides following spinal cord injury in the rat. Neuroscience, 2010, 168, 523-530.	1.1	39
24	Perspective on Schwann Cells Derived from Induced Pluripotent Stem Cells in Peripheral Nerve Tissue Engineering. Cells, 2020, 9, 2497.	1.8	39
25	Mechanical properties of the spinal cord and brain: Comparison with clinical-grade biomaterials for tissue engineering and regenerative medicine. Biomaterials, 2020, 258, 120303.	5.7	39
26	Materials for peripheral nerve repair constructs: Natural proteins or synthetic polymers?. Neurochemistry International, 2021, 143, 104953.	1.9	39
27	Electrostatic self-assembled graphene oxide-collagen scaffolds towards a three-dimensional microenvironment for biomimetic applications. RSC Advances, 2016, 6, 49039-49051.	1.7	35
28	Investigating mechanical behaviour at a core-sheath interface in peripheral nerve. Journal of the Peripheral Nervous System, 2004, 9, 255-262.	1.4	34
29	Fully Protected Glycosylated Zinc (II) Phthalocyanine Shows High Uptake and Photodynamic Cytotoxicity in MCFâ€7 Cancer Cells. Photochemistry and Photobiology, 2013, 89, 139-149.	1.3	34
30	Characterising cellular and molecular features of human peripheral nerve degeneration. Acta Neuropathologica Communications, 2020, 8, 51.	2.4	34
31	Engineered aligned endothelial cell structures in tethered collagen hydrogels promote peripheral nerve regeneration. Acta Biomaterialia, 2021, 126, 224-237.	4.1	34
32	Rapidly formed stable and aligned dense collagen gels seeded with Schwann cells support peripheral nerve regeneration. Journal of Neural Engineering, 2020, 17, 046036.	1.8	33
33	The effects of treatment with antibodies to transforming growth factor Î²1 and Î²2 following spinal cord damage in the adult rat. Neuroscience, 2004, 126, 173-183.	1.1	32
34	Micro-structured Materials and Mechanical Cues in 3D Collagen Gels. Methods in Molecular Biology, 2011, 695, 183-196.	0.4	32
35	Biomechanical properties of the spinal cord: implications for tissue engineering and clinical translation. Regenerative Medicine, 2016, 11, 659-673.	0.8	31
36	Low frequency oscillating gradient spin-echo sequences improve sensitivity to axon diameter: An experimental study in viable nerve tissue. NeuroImage, 2018, 182, 314-328.	2.1	31

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37	Optimising contraction and alignment of cellular collagen hydrogels to achieve reliable and consistent engineered anisotropic tissue. Journal of Biomaterials Applications, 2015, 30, 599-607.	1.2	29
38	Investigating the mechanical shear-plane between core and sheath elements of peripheral nerves. Cell and Tissue Research, 2005, 320, 229-234.	1.5	28
39	Peripheral neural cell sensitivity to mTHPC-mediated photodynamic therapy in a 3D in vitro model. British Journal of Cancer, 2009, 101, 658-665.	2.9	25
40	Developing an <i>In Vitro</i> Model to Screen Drugs for Nerve Regeneration. Anatomical Record, 2018, 301, 1628-1637.	0.8	25
41	An ultrastructural and biochemical analysis of collagen in rat peripheral nerves: the relationship between fibril diameter and mechanical properties. Journal of the Peripheral Nervous System, 2011, 16, 261-269.	1.4	24
42	A three-dimensional collagen construct to model lipopolysaccharide-induced activation of BV2 microglia. Journal of Neuroinflammation, 2014, 11, 134.	3.1	24
43	Cell Therapies for Spinal Cord Injury: Trends and Challenges of Current Clinical Trials. Neurosurgery, 2020, 87, E456-E472.	0.6	24
44	A three-dimensional model of the human blood-brain barrier to analyse the transport of nanoparticles and astrocyte/endothelial interactions. F1000Research, 2015, 4, 1279.	0.8	24
45	Combining Gene and Stem Cell Therapy for Peripheral Nerve Tissue Engineering. Stem Cells and Development, 2017, 26, 231-238.	1.1	23
46	The Effect of Hypothermic and Cryogenic Preservation on Engineered Neural Tissue. Tissue Engineering - Part C: Methods, 2017, 23, 575-582.	1.1	20
47	Engineering an Integrated Cellular Interface in Three-Dimensional Hydrogel Cultures Permits Monitoring of Reciprocal Astrocyte and Neuronal Responses. Tissue Engineering - Part C: Methods, 2012, 18, 526-536.	1.1	19
48	Novel inhibitors of AChE and Aβ aggregation with neuroprotective properties as lead compounds for the treatment of Alzheimer's disease. European Journal of Medicinal Chemistry, 2022, 235, 114305.	2.6	19
49	Inhibition of Specific Cellular Antioxidant Pathways Increases the Sensitivity of Neurons to Metaâ€tetrahydroxyphenyl Chlorinâ€Mediated Photodynamic Therapy in a 3D Coâ€culture Model. Photochemistry and Photobiology, 2012, 88, 1539-1545.	1.3	18
50	Building stable anisotropic tissues using cellular collagen gels. Organogenesis, 2014, 10, 6-8.	0.4	18
51	Monitoring Neuron and Astrocyte Interactions with a 3D Cell Culture System. Methods in Molecular Biology, 2014, 1162, 113-124.	0.4	18
52	Controlling human corneal stromal stem cell contraction to mediate rapid cell and matrix organization of real architecture for 3-dimensional tissue equivalents. Acta Biomaterialia, 2018, 67, 229-237.	4.1	18
53	Quantifying regeneration in patients following peripheral nerve injury. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2020, 73, 201-208.	0.5	18
54	Strategies for Peripheral Nerve Repair. Current Tissue Microenvironment Reports, 2020, 1, 49-59.	1.3	18

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55	Natural Biomaterials as Instructive Engineered Microenvironments That Direct Cellular Function in Peripheral Nerve Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2021, 9, 674473.	2.0	17
56	Engineered neural tissue made using clinical-grade human neural stem cells supports regeneration in a long gap peripheral nerve injury model. Acta Biomaterialia, 2021, 135, 203-213.	4.1	17
57	An integrated theoretical-experimental approach to accelerate translational tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e53-e59.	1.3	16
58	A 3D <i>in vitro</i> model reveals differences in the astrocyte response elicited by potential stem cell therapies for CNS injury. Regenerative Medicine, 2013, 8, 739-746.	0.8	15
59	A three-dimensional model of the human blood-brain barrier to analyse the transport of nanoparticles and astrocyte/endothelial interactions. F1000Research, 2015, 4, 1279.	0.8	15
60	Combining in silico and in vitro models to inform cell seeding strategies in tissue engineering. Journal of the Royal Society Interface, 2020, 17, 20190801.	1.5	15
61	Label-free mapping of microstructural organisation in self-aligning cellular collagen hydrogels using image correlation spectroscopy. Acta Biomaterialia, 2016, 30, 258-264.	4.1	12
62	Could clinical photochemical internalisation be optimised to avoid neuronal toxicity?. International Journal of Pharmaceutics, 2017, 528, 133-143.	2.6	12
63	Controlled local release of PPARÎ³ agonists from biomaterials to treat peripheral nerve injury. Journal of Neural Engineering, 2020, 17, 046030.	1.8	11
64	Adapting tissue-engineered in vitro CNS models for high-throughput study of neurodegeneration. Journal of Tissue Engineering, 2017, 8, 204173141769792.	2.3	9
65	Repurposing Small Molecules to Target PPAR-Î³ as New Therapies for Peripheral Nerve Injuries. Biomolecules, 2021, 11, 1301.	1.8	9
66	An alginate-based encapsulation system for delivery of therapeutic cells to the CNS. RSC Advances, 2022, 12, 4005-4015.	1.7	9
67	Physical and mechanical properties of RAFT-stabilised collagen gels for tissue engineering applications. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 216-224.	1.5	8
68	A Tenonâ€™s capsule/bulbar conjunctiva interface biomimetic to model fibrosis and local drug delivery. PLoS ONE, 2020, 15, e0241569.	1.1	8
69	A Shock to the (Nervous) System: Bioelectricity Within Peripheral Nerve Tissue Engineering. Tissue Engineering - Part B: Reviews, 2022, 28, 1137-1150.	2.5	6
70	Editorial: Peripheral Nerve Regeneration. Frontiers in Cellular Neuroscience, 2019, 13, 464.	1.8	5
71	Characterization of a â€œBlanch-Blushâ€•Mechano-Response in Palmar Skin. Journal of Investigative Dermatology, 2006, 126, 220-226.	0.3	4
72	Generation of c-MycERTAM-transduced human late-adherent olfactory mucosa cells for potential regenerative applications. Scientific Reports, 2019, 9, 13190.	1.6	4

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73	The Effects of Surgical Antiseptics and Time Delays on RNA Isolated From Human and Rodent Peripheral Nerves. Frontiers in Cellular Neuroscience, 2019, 13, 189.	1.8	4
74	Neural cell responses to wear debris from metal-on-metal total disc replacements. European Spine Journal, 2020, 29, 2701-2712.	1.0	4
75	The molecular profile of nerve repair: humans mirror rodents. Neural Regeneration Research, 2021, 16, 1440.	1.6	4
76	<i>In silico</i> framework to inform the design of repair constructs for peripheral nerve injury repair. Journal of the Royal Society Interface, 2022, 19, 20210824.	1.5	4
77	Embryonic and mature astrocytes exert different effects on neuronal growth in rat ventral mesencephalic slice cultures. SpringerPlus, 2015, 4, 558.	1.2	3
78	Modelling-informed cell-seeded nerve repair construct designs for treating peripheral nerve injuries. PLoS Computational Biology, 2021, 17, e1009142.	1.5	3
79	Volumetric MRI is a promising outcome measure of muscle reinnervation. Scientific Reports, 2021, 11, 22433.	1.6	3
80	A combined experimental and computational framework to evaluate the behavior of therapeutic cells for peripheral nerve regeneration. Biotechnology and Bioengineering, 2022, 119, 1980-1996.	1.7	3
81	A drug delivery system for the treatment of peripheral nervous system injuries. , 2004, 2004, 5047-9.		2
82	Host muscle cell infiltration in cell-seeded plastic compressed collagen constructs. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 72-75.	1.3	2
83	Three-dimensional culture systems in central nervous system research. , 2020, , 571-601.		2
84	Engineered Tissues Made from Human iPSC-Derived Schwann Cells for Investigating Peripheral Nerve Regeneration In Vitro. Methods in Molecular Biology, 2021, 2269, 245-254.	0.4	2
85	â€˜EngNTâ€™ â€" Engineering live neural tissue for nerve replacement. Emerging Topics in Life Sciences, 2021, 5, 699-703.	1.1	2
86	Microscopic biophysical model of self-organization in tissue due to feedback between cell- and macroscopic-scale forces. Physical Review Research, 2020, 2, .	1.3	2
87	Drug Therapies for Peripheral Nerve Injuries. , 2020, , 1-27.		1
88	Serum deprivation and re-addition: effects on cyclooxygenase inhibitor sensitivity in cultured glia. Inflammopharmacology, 2005, 13, 431-439.	1.9	0
89	British Society for Matrix Biology Autumn Meeting â€˜Joint with the UK Tissue & Cell Engineering Society, University of Bristol, UK. International Journal of Experimental Pathology, 2005, 86, A1-A56.	0.6	0
90	Combining Stem Cells and Materials for Nerve Tissue Regeneration. , 2020, , 269-281.		0

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91	Collagen Biomaterials for Nerve Tissue Engineering. , 2020, , 1-30.		0
92	Engineered Aligned Endothelial Cell Structures in Tethered Collagen Hydrogels Promote Peripheral Nerve Regeneration. SSRN Electronic Journal, 0, , .	0.4	0
93	Title is missing!. , 2020, 15, e0241569.		0
94	Title is missing!. , 2020, 15, e0241569.		0
95	Title is missing!. , 2020, 15, e0241569.		0
96	Title is missing!. , 2020, 15, e0241569.		0
97	Drug Therapies for Peripheral Nerve Injuries. Reference Series in Biomedical Engineering, 2022, , 437-463.	0.1	0
98	Collagen Biomaterials for Nerve Tissue Engineering. Reference Series in Biomedical Engineering, 2022, , 353-382.	0.1	0