Neil H Davies

List of Publications by Year
in descending order

61 papers	2,220 citations	257450 24 h-index	223800 46 g-index
67 all docs	67 docs citations	67 times ranked	3212 citing authors

#	Article	IF	Citations
1	Blood derived extracellular vesicles as regenerative medicine therapeutics. Biochimie, 2022, 196, 203-215.	2.6	2
2	Determination of Cross-Directional and Cross-Wall Variations of Passive Biaxial Mechanical Properties of Rat Myocardia. Processes, 2022, 10, 629.	2.8	1
3	Analysis of the regenerative capacity of human serum exosomes after a simple multistep separation from lipoproteins. Journal of Tissue Engineering and Regenerative Medicine, 2021, 15, 63-77.	2.7	7
4	Tendonâ€like tether formation for tongueâ€base advancement in an ovine model using a novel implant device intended for the surgical management of obstructive sleep apnoea. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, 109, 1005-1016.	3.4	1
5	In silico stress fibre content affects peak strain in cytoplasm and nucleus but not in the membrane for uniaxial substrate stretch. Medical and Biological Engineering and Computing, 2021, 59, 1933-1944.	2.8	0
6	Progressive Reinvention or Destination Lost? Half a Century of Cardiovascular Tissue Engineering. Frontiers in Cardiovascular Medicine, 2020, 7, 159.	2.4	19
7	Intra-myocardial alginate hydrogel injection acts as a left ventricular mid-wall constraint in swine. Acta Biomaterialia, 2020, 111, 170-180.	8.3	22
8	Tissue Ingrowth Markedly Reduces Mechanical Anisotropy and Stiffness in Fibre Direction of Highly Aligned Electrospun Polyurethane Scaffolds. Cardiovascular Engineering and Technology, 2020, 11, 456-468.	1.6	3
9	Electrospun polyester-urethane scaffold preserves mechanical properties and exhibits strain stiffening during in situ tissue ingrowth and degradation. SN Applied Sciences, 2020, 2, 1.	2.9	4
10	Tuning Tissue Ingrowth into Proangiogenic Hydrogels via Dual Modality Degradation. ACS Biomaterials Science and Engineering, 2019, 5, 5430-5438.	5.2	5
11	A Preliminary Computational Investigation Into the Flow of PEG in Rat Myocardial Tissue for Regenerative Therapy. Frontiers in Cardiovascular Medicine, 2019, 6, 104.	2.4	1
12	Synthetic extracellular matrix mimic hydrogel improves efficacy of mesenchymal stromal cell therapy for ischemic cardiomyopathy. Acta Biomaterialia, 2018, 70, 71-83.	8.3	41
13	Transmural capillary ingrowth is essential for confluent vascular graft healing. Acta Biomaterialia, 2018, 65, 237-247.	8.3	35
14	Effect of intra-myocardial Algisyl-LVRâ„¢ injectates on fibre structure in porcine heart failure. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 172-179.	3.1	6
15	Cellular mechanosensitivity to substrate stiffness decreases with increasing dissimilarity to cell stiffness. Biomechanics and Modeling in Mechanobiology, 2017, 16, 2063-2075.	2.8	7
16	Improved vascularization of porous scaffolds through growth factor delivery from heparinized polyethylene glycol hydrogels. Acta Biomaterialia, 2017, 49, 89-100.	8.3	33
17	Cast Tube Assay: A 3-D in vitro assay for visualization and quantification of horizontal chemotaxis and cellular invasion. BioTechniques, 2016, 61, 66-72.	1.8	2
18	Excessive volume of hydrogel injectates may compromise the efficacy for the treatment of acute myocardial infarction. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02772.	2.1	10

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19	Characterisation of the mechanical properties of infarcted myocardium in the rat under biaxial tension and uniaxial compression. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 252-264.	3.1	33
20	Infarcted rat myocardium: Data from biaxial tensile and uniaxial compressive testing and analysis of collagen fibre orientation. Data in Brief, 2016, 8, 1338-1343.	1.0	3
21	Delivery Modes for Cardiac Stem Cell Therapy. Pancreatic Islet Biology, 2016, , 165-190.	0.3	2
22	Personalised computational cardiology: Patient-specific modelling in cardiac mechanics and biomaterial injection therapies for myocardial infarction. Heart Failure Reviews, 2016, 21, 815-826.	3.9	31
23	Melatonin as a preventive and curative therapy against pulmonaryÂhypertension. Journal of Pineal Research, 2015, 59, 343-353.	7.4	58
24	Regulation of tissue ingrowth into proteolytically degradable hydrogels. Acta Biomaterialia, 2015, 24, 44-52.	8.3	15
25	Micro-structurally detailed model of a therapeutic hydrogel injectate in a rat biventricular cardiac geometry for computational simulations. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 325-331.	1.6	10
26	Pharmacodynamic effects of C-domain-specific ACE inhibitors on the renin-angiotensin system in myocardial infarcted rats. JRAAS - Journal of the Renin-Angiotensin-Aldosterone System, 2015, 16, 1149-1158.	1.7	24
27	Coacervate Delivery of Growth Factors Combined with a Degradable Hydrogel Preserves Heart Function after Myocardial Infarction. ACS Biomaterials Science and Engineering, 2015, 1, 753-759.	5.2	35
28	Studying the influence of hydrogel injections into the infarcted left ventricle using the elementâ€free Galerkin method. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 416-429.	2.1	17
29	A slow-release fibrin matrix increases adeno-associated virus transduction of wound repair cells inÂvivo. Journal of Biomaterials Applications, 2014, 28, 1408-1418.	2.4	14
30	Proanthocyanidins, anthocyanins and cardiovascular diseases. Food Research International, 2014, 59, 41-52.	6.2	192
31	Pharmacokinetic evaluation of lisinopril-tryptophan, a novel C-domain ACE inhibitor. European Journal of Pharmaceutical Sciences, 2014, 56, 113-119.	4.0	12
32	Computational predictions of improved of wall mechanics and function of the infarcted left ventricle at early and late remodelling stages: comparison of layered and bulk hydrogel injectates. Advances in Biomechanics and Applications, 2014, 1, 41-55.	0.2	9
33	Cell specific ingrowth hydrogels. Biomaterials, 2013, 34, 6797-6803.	11.4	36
34	The effect of hydrogel injection on cardiac function and myocardial mechanics in a computational post-infarction model. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 1185-1195.	1.6	27
35	Outcomes of myocardial infarction hydrogel injection therapy in the human left ventricle dependent on injectate distribution. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 870-884.	2.1	20
36	Oncogenic but non-essential role of N-myc downstream regulated gene 1 in the progression of esophageal squamous cell carcinoma. Cancer Biology and Therapy, 2013, 14, 164-174.	3.4	14

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37	Covalent incorporation and controlled release of active dexamethasone from injectable polyethylene glycol hydrogels. Journal of Biomedical Materials Research - Part A, 2013, 101A, 1311-1318.	4.0	10
38	A Computational Study of the Injection Therapy for Myocardial Infarction during the Necrotic Stage. , 2013, , .		0
39	Long-Term Left Ventricular Remodelling in Rat Model of Nonreperfused Myocardial Infarction: Sequential MR Imaging Using a 3T Clinical Scanner. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	16
40	Sustaining Neovascularization of a Scaffold Through Staged Release of Vascular Endothelial Growth Factor-A and Platelet-Derived Growth Factor-BB. Tissue Engineering - Part A, 2012, 18, 26-34.	3.1	42
41	The beneficial effects of deferred delivery on the efficiency of hydrogel therapy post myocardial infarction. Biomaterials, 2012, 33, 2060-2066.	11.4	56
42	Induced chronic hypoxia negates the proâ€angiogenic effect of surface immobilized heparin in a polyurethane porous scaffold. Journal of Biomedical Materials Research - Part A, 2011, 98A, 621-628.	4.0	7
43	Covalent Surface Heparinization Potentiates Porous Polyurethane Scaffold Vascularization. Journal of Biomaterials Applications, 2010, 24, 401-418.	2.4	36
44	Association of Ang-2 with Integrin Î²2 Controls Ang-2/PDGF-BB-Dependent Upregulation of Human Peripheral Blood Monocyte Fibrinolysis. Inflammation, 2009, 32, 393-401.	3.8	17
45	Rapid three-dimensional quantification of VEGF-induced scaffold neovascularisation by microcomputed tomography. Biomaterials, 2009, 30, 5959-5968.	11.4	31
46	A Synthetic Non-degradable Polyethylene Glycol Hydrogel Retards Adverse Post-infarct Left Ventricular Remodeling. Journal of Cardiac Failure, 2009, 15, 629-636.	1.7	137
47	The dosage dependence of VEGF stimulation on scaffold neovascularisation. Biomaterials, 2008, 29, 3531-3538.	11.4	83
48	Ang-2 and PDGF-BB cooperatively stimulate human peripheral blood monocyte fibrinolysis. Journal of Leukocyte Biology, 2007, 81, 1496-1503.	3.3	13
49	Stimulation of Peripheral Blood Monocyte Fibrinolysis by Angâ€2 and PDGFâ€BB. FASEB Journal, 2006, 20, A711.	0.5	0
50	The selective modulation of endothelial cell mobility on RGD peptide containing surfaces by YIGSR peptides. Biomaterials, 2005, 26, 167-174.	11.4	190
51	Cellâ€demanded release of VEGF from synthetic, biointeractive cellâ€ingrowth matrices for vascularized tissue growth. FASEB Journal, 2003, 17, 2260-2262.	0.5	501
52	Effect of Well Defined Dodecahedral Porosity on Inflammation and Angiogenesis. ASAIO Journal, 2002, 48, 465-471.	1.6	57
53	Cyclic Stretch Induces the Expression of Vascular Endothelial Growth Factor in Vascular Smooth Muscle Cells. Endothelium: Journal of Endothelial Cell Research, 2001, 8, 41-48.	1.7	51
54	Engineering of vascular ingrowth matrices: Are protein domains an alternative to peptides?. The Anatomical Record, 2001, 263, 379-387.	1.8	32

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55	Matrix Metalloproteinases and Tissue Valve Degeneration. Journal of Long-Term Effects of Medical Implants, 2001, 11, 10.	0.7	7
56	The activation function 2 domain of hepatic nuclear factor 4 is regulated by a short C-terminal proline-rich repressor domain. Nucleic Acids Research, 1998, 26, 2098-2104.	14.5	25
57	Clotting factor IX levels in C/EBPÃŽÂ± knockout mice. British Journal of Haematology, 1997, 99, 578-579.	2.5	11
58	Increased levels of autoantibodies to cardiolipin and oxidised low density lipoprotein are inversely associated with plasma vitamin C status in cigarette smokers. Atherosclerosis, 1996, 124, 75-81.	0.8	47
59	Histone H2B (and H2A) ubiquitination allows normal histone octamer and core particle reconstitution. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1994, 1218, 187-193.	2.4	41
60	Histone-DNA contacts in the 167 bp 2-turn core particle. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1991, 1129, 57-63.	2.4	7
61	Extended C-terminal tail of wheat histone H2A interacts with DNA of the â€œlinkerâ€•region. Journal of Molecular Biology, 1991, 218, 805-813.	4.2	50