Brenda Russell

List of Publications by Year
in descending order

57 papers	1,893 citations	236612 25 h-index	264894 42 g-index
58 all docs	58 docs citations	58 times ranked	2251 citing authors

#	Article	IF	Citations
1	Fabrication of microtextured membranes for cardiac myocyte attachment and orientation. Journal of Biomedical Materials Research Part B, 2000, 53, 267-275.	3.0	131
2	Form follows function: how muscle shape is regulated by work. Journal of Applied Physiology, 2000, 88, 1127-1132.	1.2	124
3	Microtextured substrata alter gene expression, protein localization and the shape of cardiac myocytes. Biomaterials, 2003, 24, 2463-2476.	5.7	108
4	Mechanical stress-induced sarcomere assembly for cardiac muscle growth in length and width. Journal of Molecular and Cellular Cardiology, 2010, 48, 817-823.	0.9	103
5	Restoration of Resting Sarcomere Length After Uniaxial Static Strain Is Regulated by Protein Kinase CÎµ and Focal Adhesion Kinase. Circulation Research, 2004, 94, 642-649.	2.0	101
6	Inhibition of fibroblast proliferation in cardiac myocyte cultures by surface microtopography. American Journal of Physiology - Cell Physiology, 2003, 285, C171-C182.	2.1	90
7	Cardiac dysfunction and heart failure are associated with abnormalities in the subcellular distribution and amounts of oligomeric muscle LIM protein. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H259-H269.	1.5	89
8	Myocyte remodeling in response to hypertrophic stimuli requires nucleocytoplasmic shuttling of muscle LIM protein. Journal of Molecular and Cellular Cardiology, 2009, 47, 426-435.	0.9	80
9	Cardiac Tissue Engineering. Journal of Cardiovascular Nursing, 2009, 24, 87-92.	0.6	80
10	Microfabricated grooves recapitulate neonatal myocyte connexin43 and N-cadherin expression and localization. Journal of Biomedical Materials Research Part B, 2003, 67A, 148-157.	3.0	76
11	Long-Term Biased Î²-Arrestin Signaling Improves Cardiac Structure and Function in Dilated Cardiomyopathy. Circulation, 2017, 135, 1056-1070.	1.6	72
12	GRGDSP peptide-bound silicone membranes withstand mechanical flexing in vitro and display enhanced fibroblast adhesion. Biomaterials, 2002, 23, 3159-3168.	5.7	66
13	Injectable hyaluronic acid based microrods provide local micromechanical and biochemical cues to attenuate cardiac fibrosis after myocardial infarction. Biomaterials, 2018, 169, 11-21.	5.7	54
14	Cardiomyocyte Remodeling and Sarcomere Addition after Uniaxial Static Strain In Vitro. Journal of Histochemistry and Cytochemistry, 2005, 53, 839-844.	1.3	51
15	Micromechanical regulation in cardiac myocytes and fibroblasts: implications for tissue remodeling. Pflugers Archiv European Journal of Physiology, 2011, 462, 105-117.	1.3	42
16	Stimulus interval, rate and direction differentially regulate phosphorylation for mechanotransduction in neonatal cardiac myocytes. FEBS Letters, 2007, 581, 4241-4247.	1.3	37
17	Migration and proliferation of human mesenchymal stem cells is stimulated by different regions of the mechano-growth factor prohormone. Journal of Molecular and Cellular Cardiology, 2010, 49, 1042-1045.	0.9	36
18	CapZ dynamics are altered by endothelin-1 and phenylephrine via PIP2- and PKC-dependent mechanisms. American Journal of Physiology - Cell Physiology, 2009, 296, C1034-C1039.	2.1	32

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19	Proliferation of mouse embryonic stem cell progeny and the spontaneous contractile activity of cardiomyocytes are affected by microtopography. Developmental Dynamics, 2009, 238, 1964-1973.	0.8	32
20	Serine-910 phosphorylation of focal adhesion kinase is critical for sarcomere reorganization in cardiomyocyte hypertrophy. Cardiovascular Research, 2011, 92, 409-419.	1.8	32
21	Microstructures in 3D Biological Gels Affect Cell Proliferation. Tissue Engineering - Part A, 2008, 14, 379-390.	1.6	30
22	Threeâ€Ðimensional Culture with Stiff Microstructures Increases Proliferation and Slows Osteogenic Differentiation of Human Mesenchymal Stem Cells. Small, 2010, 6, 355-360.	5.2	29
23	Actin dynamics is rapidly regulated by the PTEN and PIP₂ signaling pathways leading to myocyte hypertrophy. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H1618-H1625.	1.5	29
24	Microtubules are Needed for Dispersal ofÎ±-myosin Heavy Chain mRNA in Rat Neonatal Cardiac Myocytes. Journal of Molecular and Cellular Cardiology, 1998, 30, 1713-1722.	0.9	27
25	Sodium current modulation by a tubulin/GTP coupled process in rat neonatal cardiac myocytes. Journal of Physiology, 2002, 540, 93-103.	1.3	27
26	CapZ and actin capping dynamics increase in myocytes after a bout of exercise and abates in hours after stimulation ends. Journal of Applied Physiology, 2013, 114, 1603-1609.	1.2	26
27	Phosphatidylinositol 4,5-bisphosphate regulates CapZÎ²1 and actin dynamics in response to mechanical strain. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 305, H1614-H1623.	1.5	25
28	Myofibril growth during cardiac hypertrophy is regulated through dual phosphorylation and acetylation of the actin capping protein CapZ. Cellular Signalling, 2016, 28, 1015-1024.	1.7	23
29	Sustained delivery of MGF peptide from microrods attracts stem cells and reduces apoptosis of myocytes. Biomedical Microdevices, 2014, 16, 705-715.	1.4	20
30	Cardiomyocyte subdomain contractility arising from microenvironmental stiffness and topography. Biomechanics and Modeling in Mechanobiology, 2015, 14, 589-602.	1.4	19
31	Perinatal changes in avian muscle: Implications from ultrastructure for the development of endothermy. Journal of Morphology, 1995, 225, 357-367.	0.6	17
32	Mechanical activity in heart regulates translation of Î±-myosin heavy chain mRNA but not its localization. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H2013-H2019.	1.5	15
33	Cyclic strain dominates over microtopography in regulating cytoskeletal and focal adhesion remodeling of human mesenchymal stem cells. Biochemical and Biophysical Research Communications, 2013, 430, 1040-1046.	1.0	15
34	CapZ integrates several signaling pathways in response to mechanical stiffness. Journal of General Physiology, 2019, 151, 660-669.	0.9	15
35	Hang on tight: reprogramming the cell with microstructural cues. Biomedical Microdevices, 2019, 21, 43.	1.4	13
36	Signaling responses after exposure to 5Î±-dihydrotestosterone or 17Î²-estradiol in norepinephrine-induced hypertrophy of neonatal rat ventricular myocytes. Journal of Applied Physiology, 2010, 108, 686-696.	1.2	12

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37	Hypertrophy, gene expression, and beating of neonatal cardiac myocytes are affected by microdomain heterogeneity in 3D. Biomedical Microdevices, 2010, 12, 1073-1085.	1.4	12
38	Microdomain heterogeneity in 3D affects the mechanics of neonatal cardiac myocyte contraction. Biomechanics and Modeling in Mechanobiology, 2013, 12, 95-109.	1.4	11
39	Cyclic mechanical strain of myocytes modifies CapZÎ²1 post translationally via PKCÎµ. Journal of Muscle Research and Cell Motility, 2015, 36, 329-337.	0.9	11
40	Transthyretin amyloid fibrils alter primary fibroblast structure, function, and inflammatory gene expression. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H149-H160.	1.5	10
41	Striated muscle proteins are regulated both by mechanical deformation and by chemical post-translational modification. Biophysical Reviews, 2021, 13, 679-695.	1.5	10
42	Biophysical Forces Modulate the Costamere and Z-Disc for Sarcomere Remodeling in Heart Failure. Biological and Medical Physics Series, 2013, , 141-174.	0.3	10
43	Variation in stiffness regulates cardiac myocyte hypertrophy via signaling pathways. Canadian Journal of Physiology and Pharmacology, 2016, 94, 1178-1186.	0.7	9
44	Mechanosignaling pathways alter muscle structure and function by post-translational modification of existing sarcomeric proteins to optimize energy usage. Journal of Muscle Research and Cell Motility, 2021, 42, 367-380.	0.9	8
45	Translation is regulated via the 3' untranslated region of alpha-myosin heavy chain mRNA by calcium but not by its localization. Journal of Muscle Research and Cell Motility, 2000, 21, 599-607.	0.9	7
46	Lipid signaling affects primary fibroblast collective migration and anchorage in response to stiffness and microtopography. Journal of Cellular Physiology, 2018, 233, 3672-3683.	2.0	7
47	PKC epsilon signaling effect on actin assembly is diminished in cardiomyocytes when challenged to additional work in a stiff microenvironment. Cytoskeleton, 2018, 75, 363-371.	1.0	6
48	Three-dimensional chemical structures by protein functionalized micron-sized beads bound to polylysine-coated silicone surfaces. Journal of Biomedical Materials Research - Part A, 2005, 72A, 373-380.	2.1	4
49	Muscle Function and Ageing. , 2008, , 49-61.		4
50	Transthyretin deposition alters cardiomyocyte sarcomeric architecture, calcium transients, and contractile force. Physiological Reports, 2022, 10, e15207.	0.7	3
51	Calcium not strain regulates localization of Î±-myosin heavy chain mRNA in oriented cardiac myocytes. Cell and Tissue Research, 2001, 305, 121-127.	1.5	2
52	Substrate Stiffness and Microtopography in PIP 2 Regulation of the Actin Cytoskeleton in Primary Cardiac Fibroblasts. FASEB Journal, 2015, 29, 1029.4.	0.2	1
53	Stem cells: Small 3/2010. Small, 2010, 6, .	5.2	0
54	Inhibition of nuclear import of muscle LIM protein prevents myocyte hypertrophy. FASEB Journal, 2007, 21, A1410.	0.2	0

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55	Microstructures in 3D Biological Gels Affect Cell Proliferation. Tissue Engineering, 0, , 110306233438005.	4.9	0
56	Microprojections regulate proliferation and activity of cardiomyocytes derived from mouse embryonic stem cells. FASEB Journal, 2008, 22, 1197.6.	0.2	0
57	Simulation of Physiologic Strain to Aligned Cells Anchored in 3D Affects Proliferation, Differentiation, and Organization of the Actin Cytoskeleton. FASEB Journal, 2012, 26, 1060.16.	0.2	0