Keith J Gooch

List of Publications by Year
in descending order

49 papers	1,899 citations	331538 21 h-index	254106 43 g-index
50 all docs	50 docs citations	50 times ranked	2870 citing authors

#	Article	IF	Citations
1	Endothelial actin and cell stiffness is modulated by substrate stiffness in 2D and 3D. Journal of Biomechanics, 2009, 42, 1114-1119.	0.9	202
2	Differential Effects of Growth Factors on Tissue-Engineered Cartilage. Tissue Engineering, 2002, 8, 73-84.	4.9	190
3	Fibers in the Extracellular Matrix Enable Long-Range Stress Transmission between Cells. Biophysical Journal, 2013, 104, 1410-1418.	0.2	169
4	Biomaterialâ€"microvasculature interactions. Biomaterials, 2000, 21, 2233-2241.	5.7	139
5	OxLDL increases endothelial stiffness, force generation, and network formation. Journal of Lipid Research, 2006, 47, 715-723.	2.0	90
6	Successful growth and characterization of mouse pancreatic ductal cells: functional properties of the Ki-RASG12V oncogene. Gastroenterology, 2004, 127, 250-260.	0.6	88
7	Shear stress and pressure modulate saphenous vein remodeling ex vivo. Journal of Biomechanics, 2005, 38, 1760-1769.	0.9	81
8	Exogenous, basal, and flow-induced nitric oxide production and endothelial cell proliferation. Journal of Cellular Physiology, 1997, 171, 252-258.	2.0	71
9	Pericellular Conditions Regulate Extent of Cell-Mediated Compaction ofÂCollagen Gels. Biophysical Journal, 2010, 99, 19-28.	0.2	60
10	oxLDL-induced decrease in lipid order of membrane domains is inversely correlated with endothelial stiffness and network formation. American Journal of Physiology - Cell Physiology, 2010, 299, C218-C229.	2.1	59
11	Lipid Rafts in Membraneâ€"Cytoskeleton Interactions and Control of Cellular Biomechanics: Actions of oxLDL. Antioxidants and Redox Signaling, 2007, 9, 1519-1534.	2.5	56
12	High throughput assembly of spatially controlled 3D cell clusters on a micro/nanoplatform. Lab on A Chip, 2010, 10, 775.	3.1	55
13	Direct influence of culture dimensionality on human mesenchymal stem cell differentiation at various matrix stiffnesses using a fibrous selfâ€assembling peptide hydrogel. Journal of Biomedical Materials Research - Part A, 2016, 104, 2356-2368.	2.1	53
14	Biomaterial microarchitecture: a potent regulator of individual cell behavior and multicellular organization. Journal of Biomedical Materials Research - Part A, 2017, 105, 640-661.	2.1	53
15	Tissue Engineering of Arteries by Directed Remodeling of Intact Arterial Segments. Tissue Engineering, 2003, 9, 461-472.	4.9	45
16	Independent control of matrix adhesiveness and stiffness within a 3D self-assembling peptide hydrogel. Acta Biomaterialia, 2018, 70, 110-119.	4.1	42
17	Mechanical properties of native and ex vivo remodeled porcine saphenous veins. Journal of Biomechanics, 2005, 38, 1770-1779.	0.9	38
18	The Effect of RGD Peptide on 2D and Miniaturized 3D Culture of HEPM Cells, MSCs, and ADSCs with Alginate Hydrogel. Cellular and Molecular Bioengineering, 2016, 9, 277-288.	1.0	28

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19	Complex Matrix Remodeling and Durotaxis Can Emerge From Simple Rules for Cell-Matrix Interaction in Agent-Based Models. Journal of Biomechanical Engineering, 2013, 135, 71003.	0.6	27
20	Transmural pressure and axial loading interactively regulate arterial remodeling ex vivo. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H475-H484.	1.5	26
21	Protandim attenuates intimal hyperplasia in human saphenous veins cultured ex vivo via a catalase-dependent pathway. Free Radical Biology and Medicine, 2011, 50, 700-709.	1.3	23
22	Micropatterned polymer surfaces improve retention of endothelial cells exposed to flow-induced shear stress. Biorheology, 2006, 43, 45-55.	1.2	22
23	Effect of Extracellular Matrix and 3D Morphogenesis on Islet Hormone Gene Expression by Ngn3-Infected Mouse Pancreatic Ductal Epithelial Cells. Tissue Engineering - Part A, 2008, 14, 1927-1937.	1.6	21
24	Vacuum-Assisted Cell Seeding in a Microwell Cell Culture System. Analytical Chemistry, 2010, 82, 2380-2386.	3.2	21
25	Biomechanics and Mechanobiology of Saphenous Vein Grafts. Journal of Biomechanical Engineering, 2018, 140, .	0.6	21
26	Agent-Based Modeling Traction Force Mediated Compaction of Cell-Populated Collagen Gels Using Physically Realistic Fibril Mechanics. Journal of Biomechanical Engineering, 2014, 136, 021024.	0.6	20
27	Î²IV-Spectrin/STAT3 complex regulates fibroblast phenotype, fibrosis, and cardiac function. JCI Insight, 2019, 4, .	2.3	19
28	Hemodynamic Conditions Alter Axial and Circumferential Remodeling of Arteries Engineered Ex Vivo. Annals of Biomedical Engineering, 2005, 33, 721-732.	1.3	18
29	Role of the cytoskeleton in the development of a hypofibrotic cardiac fibroblast phenotype in volume overload heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H596-H608.	1.5	18
30	Induced Cell Clustering Enhances IsletÎ²Cell Formation from Human Cultures Enriched for Pancreatic Ductal Epithelial Cells. Tissue Engineering, 2006, 12, 939-948.	4.9	17
31	Hemodynamics and Axial Strain Additively Increase Matrix Remodeling and MMP-9, But Not MMP-2, Expression in Arteries Engineered by Directed Remodeling. Tissue Engineering - Part A, 2009, 15, 1282-1290.	1.6	16
32	Salmon fibrin supports an increased number of sprouts and decreased degradation while maintaining sprout length relative to human fibrin in an in vitro angiogenesis model. Journal of Biomaterials Science, Polymer Edition, 2004, 15, 237-242.	1.9	15
33	Micro/nanoscale technologies for the development of hormone-expressing islet-like cell clusters. Biomedical Microdevices, 2012, 14, 779-789.	1.4	15
34	Vascular Mechanics in Decellularized Aortas and Coronary Resistance Microvessels in Type 2 Diabetic db/db Mice. Annals of Biomedical Engineering, 2015, 43, 2760-2770.	1.3	14
35	An Agent-Based Discrete Collagen Fiber Network Model of Dynamic Traction Force-Induced Remodeling. Journal of Biomechanical Engineering, 2018, 140, .	0.6	13
36	Transgene Expression Level and Inherent Differences in Target Gene Activation Determine the Rate and Fate of Neurogenin3-Mediated Islet Cell Differentiation In Vitro. Tissue Engineering, 2007, 13, 775-788.	4.9	10

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37	Arterial Levels of Oxygen Stimulate Intimal Hyperplasia in Human Saphenous Veins via a ROS-Dependent Mechanism. PLoS ONE, 2015, 10, e0120301.	1.1	10
38	Decreased Substrate Stiffness Promotes a Hypofibrotic Phenotype in Cardiac Fibroblasts. International Journal of Molecular Sciences, 2021, 22, 6231.	1.8	8
39	Differences in Transmural Pressure and Axial Loading Ex Vivo Affect Arterial Remodeling and Material Properties. Journal of Biomechanical Engineering, 2009, 131, 101009.	0.6	5
40	Exogenous, basal, and flowâ€induced nitric oxide production and endothelial cell proliferation. Journal of Cellular Physiology, 1997, 171, 252-258.	2.0	5
41	Shear sensitivity in animal cell culture. Current Opinion in Biotechnology, 1993, 4, 193-196.	3.3	4
42	Arterial pO2 stimulates intimal hyperplasia and serum stimulates inward eutrophic remodeling in porcine saphenous veins cultured ex vivo. Biomechanics and Modeling in Mechanobiology, 2011, 10, 161-175.	1.4	4
43	Labeling of endothelial cells with magnetic microbeads by angiophagy. Biotechnology Letters, 2018, 40, 1189-1200.	1.1	3
44	Paired Pressureâ€"Volume Loop Analysis and Biaxial Mechanical Testing Characterize Differences in Left Ventricular Tissue Stiffness of Volume Overload and Angiotensin-Induced Pressure Overload Hearts. Journal of Biomechanical Engineering, 2021, 143, .	0.6	2
45	Tissue-specific vascular remodeling and stiffness associated with metabolic diseases. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H555-H556.	1.5	1
46	Pancreatic Epithelial Cells Form Islet-Like Clusters in the Absence of Directed Migration. Cellular and Molecular Bioengineering, 2015, 8, 496-506.	1.0	1
47	A Mechanistic Motor-Clutch Model That Explains Cell Shape Dynamics to Cyclic Stretch. Molecular Biology of the Cell, 2022, , mbcE20010087.	0.9	1
48	The Passive Mechanical Environment Alters the Phenotype of Cardiac Fibroblasts. FASEB Journal, 2013, 27, 1129.15.	0.2	0
49	Production Systems. , 1997, , 147-167.		0