Rudolph L Gleason

List of Publications by Year
in descending order

43	970	394390 19	477281 29
papers	citations	h-index	g-index

43	43	43	1124
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A mathematical model of maternal vascular growth and remodeling and changes in maternal hemodynamics in uncomplicated pregnancy. Biomechanics and Modeling in Mechanobiology, 2022, 21, 647-669.	2.8	4
2	A novel computational growth framework for biological tissues: Application to growth of aortic root aneurysm repaired by the V-shape surgery. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 127, 105081.	3.1	9
3	Lymphatic remodelling in response to lymphatic injury in the hind limbs of sheep. Nature Biomedical Engineering, 2020, 4, 649-661.	22.5	9
4	Axial stretch regulates rat tail collecting lymphatic vessel contractions. Scientific Reports, 2020, 10, 5918.	3.3	13
5	Characterization of rat tail lymphatic contractility and biomechanics: incorporating nitric oxide-mediated vasoregulation. Journal of the Royal Society Interface, 2020, 17, 20200598.	3.4	9
6	Sickle Cell Anemia Mediates Carotid Artery Expansive Remodeling That Can Be Prevented by Inhibition of JNK (c-Jun N-Terminal Kinase). Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 1220-1230.	2.4	7
7	Smooth muscle regional contribution to vaginal wall function. Interface Focus, 2019, 9, 20190025.	3.0	32
8	Three-dimensional camera anthropometry to assess risk of cephalopelvic disproportion-related obstructed labour in Ethiopia. Interface Focus, 2019, 9, 20190036.	3.0	7
9	A safe, low-cost, easy-to-use 3D camera platform to assess risk of obstructed labor due to cephalopelvic disproportion. PLoS ONE, 2018, 13, e0203865.	2.5	19
10	The small heat shock protein HSPB1 protects mice from sepsis. Scientific Reports, 2018, 8, 12493.	3.3	10
11	A Novel Approach to Assess the In Situ Versus Ex Vivo Mechanical Behaviors of the Coronary Artery. Journal of Biomechanical Engineering, 2017, 139, .	1.3	2
12	Lipid Peroxidation and Altered Antioxidant Profiles with Pediatric HIV Infection and Antiretroviral Therapy in Addis Ababa, Ethiopia. Journal of Tropical Pediatrics, 2017, 63, 196-202.	1.5	10
13	The relationship between lymphangion chain length and maximum pressure generation established through in vivo imaging and computational modeling. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 313, H1249-H1260.	3.2	17
14	Disturbed Flow Promotes Arterial Stiffening Through Thrombospondin-1. Circulation, 2017, 136, 1217-1232.	1.6	48
15	A lumped parameter model of mechanically mediated acute and long-term adaptations of contractility and geometry in lymphatics for characterization of lymphedema. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1601-1618.	2.8	22
16	Efavirenz and ritonavir-boosted lopinavir use exhibited elevated markers of atherosclerosis across age groups in people living with HIV in Ethiopia. Journal of Biomechanics, 2016, 49, 2584-2592.	2.1	20
17	Low-Cost Method to Monitor Patient Adherence to HIV Antiretroviral Therapy Using Multiplex Cathepsin Zymography. Molecular Biotechnology, 2016, 58, 56-64.	2.4	6
18	Smooth Muscle-Targeted Overexpression of Peroxisome Proliferator Activated Receptor-Î³ Disrupts Vascular Wall Structure and Function. PLoS ONE, 2015, 10, e0139756.	2.5	9

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19	Quantification of the passive and active biaxial mechanical behaviour and microstructural organization of rat thoracic ducts. Journal of the Royal Society Interface, 2015, 12, 20150280.	3.4	26
20	Residual deformations in ocular tissues. Journal of the Royal Society Interface, 2015, 12, 20141101.	3.4	14
21	Efavirenz treatment causes arterial stiffening in apolipoprotein E-null mice. Journal of Biomechanics, 2015, 48, 2176-2180.	2.1	5
22	Current Efavirenz (EFV) or Ritonavir-Boosted Lopinavir (LPV/r) Use Correlates with Elevate Markers of Atherosclerosis in HIV-Infected Subjects in Addis Ababa, Ethiopia. PLoS ONE, 2015, 10, e0117125.	2.5	30
23	Residual Shear Deformations in the Coronary Artery. Journal of Biomechanical Engineering, 2014, 136, 061004.	1.3	11
24	Differential mechanical response and microstructural organization between non-human primate femoral and carotid arteries. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1041-1051.	2.8	16
25	Pro-Atherogenic Shear Stress and HIV Proteins Synergistically Upregulate Cathepsin K in Endothelial Cells. Annals of Biomedical Engineering, 2014, 42, 1185-1194.	2.5	8
26	Contractile Force Is Enhanced in Aortas from Pendrin Null Mice Due to Stimulation of Angiotensin II-Dependent Signaling. PLoS ONE, 2014, 9, e105101.	2.5	9
27	Endothelial Dysfunction, Arterial Stiffening, and Intima-Media Thickening in Large Arteries from HIV-1 Transgenic Mice. Annals of Biomedical Engineering, 2013, 41, 682-693.	2.5	27
28	Azidothymidine (AZT) leads to arterial stiffening and intima-media thickening in mice. Journal of Biomechanics, 2013, 46, 1540-1547.	2.1	19
29	In-situ characterization of the uncrimping process of arterial collagen fibers using two-photon confocal microscopy and digital image correlation. Journal of Biomechanics, 2013, 46, 2726-2729.	2.1	22
30	Dysfunction in elastic fiber formation in fibulin-5 null mice abrogates the evolution in mechanical response of carotid arteries during maturation. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 304, H674-H686.	3.2	27
31	Constitutive Modeling of Mouse Carotid Arteries Using Experimentally Measured Microstructural Parameters. Biophysical Journal, 2012, 102, 2916-2925.	0.5	56
32	Catalase overexpression in aortic smooth muscle prevents pathological mechanical changes underlying abdominal aortic aneurysm formation. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H355-H362.	3.2	47
33	A 3-D constrained mixture model for mechanically mediated vascular growth and remodeling. Biomechanics and Modeling in Mechanobiology, 2010, 9, 403-419.	2.8	28
34	Biomechanical and Microstructural Properties of Common Carotid Arteries from Fibulin-5 Null Mice. Annals of Biomedical Engineering, 2010, 38, 3605-3617.	2.5	70
35	A Mechanical Analysis of Conduit Arteries Accounting for Longitudinal Residual Strains. Annals of Biomedical Engineering, 2010, 38, 1377-1387.	2.5	28
36	A Phenomenological Model for Mechanically Mediated Growth, Remodeling, Damage, and Plasticity of Gel-Derived Tissue Engineered Blood Vessels. Journal of Biomechanical Engineering, 2009, 131, 101016.	1.3	12

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37	A Novel Cylindrical Biaxial Computer-Controlled Bioreactor and Biomechanical Testing Device for Vascular Tissue Engineering. Tissue Engineering - Part A, 2009, 15, 3331-3340.	3.1	30
38	Microstructurally Motivated Constitutive Modeling of Mouse Arteries Cultured Under Altered Axial Stretch. Journal of Biomechanical Engineering, 2009, 131, 101015.	1.3	26
39	Quantification of the mechanical behavior of carotid arteries from wild-type, dystrophin-deficient, and sarcoglycan-Î´ knockout mice. Journal of Biomechanics, 2008, 41, 3213-3218.	2.1	63
40	Theory and Experiments for Mechanically-Induced Remodeling of Tissue Engineered Blood Vessels. Advances in Science and Technology, 2008, 57, 226-234.	0.2	2
41	Biaxial biomechanical adaptations of mouse carotid arteries cultured at altered axial extension. Journal of Biomechanics, 2007, 40, 766-776.	2.1	66
42	A 2D constrained mixture model for arterial adaptations to large changes in flow, pressure and axial stretch. Mathematical Medicine and Biology, 2005, 22, 347-369.	1.2	58
43	Building a functional artery: issues from the perspective of mechanics. Frontiers in Bioscience - Landmark, 2004, 9, 2045.	3.0	17