

John A Frangos

List of Publications by Year in descending order

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96
papers

6,148
citations

61945

43
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71651

76
g-index

96
all docs

96
docs citations

96
times ranked

5437
citing authors

#	ARTICLE	IF	CITATIONS
1	G protein-coupled receptors sense fluid shear stress in endothelial cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15463-15468.	3.3	424
2	Fluid shear stress as a mediator of osteoblast cyclic adenosine monophosphate production. Journal of Cellular Physiology, 1990, 143, 100-104.	2.0	326
3	Low nitric oxide bioavailability contributes to the genesis of experimental cerebral malaria. Nature Medicine, 2006, 12, 1417-1422.	15.2	234
4	The shear stress of it all: the cell membrane and mechanochemical transduction. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 1459-1467.	1.8	217
5	Fluid Flow Rapidly Activates G Proteins in Human Endothelial Cells. Circulation Research, 1996, 79, 834-839.	2.0	216
6	Temporal Gradient in Shear But Not Steady Shear Stress Induces PDGF-A and MCP-1 Expression in Endothelial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 1999, 19, 996-1003.	1.1	205
7	New fluorescent probes for the measurement of cell membrane viscosity. Chemistry and Biology, 2001, 8, 123-131.	6.2	202
8	Pulsatile and steady flow induces c-fos expression in human endothelial cells. Journal of Cellular Physiology, 1993, 154, 143-151.	2.0	197
9	Fluid shear stress increases membrane fluidity in endothelial cells: a study with DCVJ fluorescence. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H1401-H1406.	1.5	186
10	Temporal Gradients in Shear, but Not Spatial Gradients, Stimulate Endothelial Cell Proliferation. Circulation, 2001, 103, 2508-2513.	1.6	154
11	Steady Shear and Step Changes in Shear Stimulate Endothelium via Independent Mechanisms—Superposition of Transient and Sustained Nitric Oxide Production. Biochemical and Biophysical Research Communications, 1996, 224, 660-665.	1.0	151
12	Shear-induced platelet-derived growth factor gene expression in human endothelial cells is mediated by protein kinase C. Journal of Cellular Physiology, 1992, 150, 552-558.	2.0	136
13	Mechanism of shear-induced prostacyclin production in endothelial cells. Biochemical and Biophysical Research Communications, 1989, 158, 31-37.	1.0	134
14	Nongenomic Thyroid Hormone Signaling Occurs Through a Plasma Membrane—Localized Receptor. Science Signaling, 2014, 7, ra48.	1.6	119
15	Activation of G Proteins Mediates Flow-Induced Prostaglandin E ₂ Production in Osteoblasts. Endocrinology, 1997, 138, 1014-1018.	1.4	110
16	PECAM-1 Mediates NO-Dependent Dilation of Arterioles to High Temporal Gradients of Shear Stress. Arteriosclerosis, Thrombosis, and Vascular Biology, 2005, 25, 1590-1595.	1.1	105
17	Murine Cerebral Malaria Is Associated with a Vasospasm-Like Microcirculatory Dysfunction, and Survival upon Rescue Treatment Is Markedly Increased by Nimodipine. American Journal of Pathology, 2010, 176, 1306-1315.	1.9	96
18	Temporal gradient in shear-induced signaling pathway: involvement of MAP kinase, c-fos, and connexin43. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H1598-H1605.	1.5	90

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19	Fluid Shear Stress Stimulates Membrane Phospholipid Metabolism in Cultured Human Endothelial Cells. <i>Journal of Vascular Research</i> , 1992, 29, 443-449.	0.6	87
20	Type II cGMP-dependent Protein Kinase Mediates Osteoblast Mechanotransduction. <i>Journal of Biological Chemistry</i> , 2009, 284, 14796-14808.	1.6	86
21	Nitric Oxide Protection Against Murine Cerebral Malaria Is Associated With Improved Cerebral Microcirculatory Physiology. <i>Journal of Infectious Diseases</i> , 2011, 203, 1454-1463.	1.9	86
22	Laurdan fluorescence senses mechanical strain in the lipid bilayer membrane. <i>Biochemical and Biophysical Research Communications</i> , 2006, 347, 838-841.	1.0	83
23	Equibiaxial strain and strain rate stimulate early activation of G proteins in cardiac fibroblasts. <i>American Journal of Physiology - Cell Physiology</i> , 1998, 274, C1424-C1428.	2.1	81
24	Protein kinase C mediates flow-induced prostaglandin E2 production in osteoblasts. <i>Calcified Tissue International</i> , 1993, 52, 62-66.	1.5	76
25	Mechanism of temporal gradients in shear-induced ERK1/2 activation and proliferation in endothelial cells. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001, 281, H22-H29.	1.5	76
26	Microfluidic enhancement of intramedullary pressure increases interstitial fluid flow and inhibits bone loss in hindlimb suspended mice. <i>Journal of Bone and Mineral Research</i> , 2010, 25, 1798-1807.	3.1	76
27	Fluid shear stress induces upregulation of COX-2 and PGI ₂ release in endothelial cells via a pathway involving PECAM-1, PI3K, FAK, and p38. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2017, 312, H485-H500.	1.5	76
28	Temporal gradients in shear stimulate osteoblastic proliferation via ERK1/2 and retinoblastoma protein. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2002, 283, E383-E389.	1.8	75
29	Flow-induced prostacyclin production is mediated by a pertussis toxin-sensitive G protein. <i>FEBS Letters</i> , 1992, 308, 277-279.	1.3	71
30	Exogenous, basal, and flow-induced nitric oxide production and endothelial cell proliferation. <i>Journal of Cellular Physiology</i> , 1997, 171, 252-258.	2.0	71
31	Shear-Induced Increase in Hydraulic Conductivity in Endothelial Cells Is Mediated by a Nitric Oxide-Dependent Mechanism. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2000, 20, 35-42.	1.1	66
32	Rapid Activation of Ras by Fluid Flow Is Mediated by G ₁₂ and G ₁₃ Subunits of Heterotrimeric G Proteins in Human Endothelial Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2003, 23, 994-1000.	1.1	64
33	A novel approach to blood plasma viscosity measurement using fluorescent molecular rotors. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2002, 282, H1609-H1614.	1.5	62
34	Oxygen delivery and consumption in the microcirculation after extreme hemodilution with perfluorocarbons. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2004, 287, H320-H330.	1.5	62
35	Mechanical stimulus alters conformation of type 1 parathyroid hormone receptor in bone cells. <i>American Journal of Physiology - Cell Physiology</i> , 2009, 296, C1391-C1399.	2.1	62
36	Coronary Arteriolar Dilation to Acidosis. <i>Circulation</i> , 1999, 99, 558-563.	1.6	60

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37	Role of endothelial nitric oxide in microvascular oxygen delivery and consumption. <i>Free Radical Biology and Medicine</i> , 2005, 39, 1229-1237.	1.3	58
38	PECAM-1 is a critical mediator of atherosclerosis. <i>DMM Disease Models and Mechanisms</i> , 2008, 1, 175-181.	1.2	57
39	Reactive oxygen species inhibited by titanium oxide coatings. <i>Journal of Biomedical Materials Research Part B</i> , 2003, 66A, 396-402.	3.0	53
40	Exogenous nitric oxide decreases brain vascular inflammation, leakage and venular resistance during <i>Plasmodium berghei</i> ANKA infection in mice. <i>Journal of Neuroinflammation</i> , 2011, 8, 66.	3.1	50
41	Nitric Oxide Synthase Dysfunction Contributes to Impaired Cerebroarteriolar Reactivity in Experimental Cerebral Malaria. <i>PLoS Pathogens</i> , 2013, 9, e1003444.	2.1	49
42	Phospholipid-Bound Molecular Rotors: Synthesis and Characterization. <i>Bioorganic and Medicinal Chemistry</i> , 2002, 10, 3627-3636.	1.4	47
43	Shear-induced endothelial cell-cell junction inclination. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 299, C621-C629.	2.1	46
44	Effects of flow on the synthesis and release of fibronectin by endothelial cells. <i>In Vitro Cellular & Developmental Biology</i> , 1990, 26, 57-60.	1.0	44
45	Temporal gradients in shear, but not spatial gradients, stimulate ERK1/2 activation in human endothelial cells. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 289, H2350-H2355.	1.5	40
46	Strain-induced fetal type II epithelial cell differentiation is mediated via cAMP-PKA-dependent signaling pathway. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2006, 291, L820-L827.	1.3	40
47	Analysis of Temporal Shear Stress Gradients During the Onset Phase of Flow Over a Backward-Facing Step. <i>Journal of Biomechanical Engineering</i> , 2001, 123, 455-463.	0.6	38
48	<i>Plasmodium berghei</i> Resists Killing by Reactive Oxygen Species. <i>Infection and Immunity</i> , 2005, 73, 6704-6710.	1.0	38
49	Rapid changes in shear stress induce dissociation of a G_{i1} platelet endothelial cell adhesion molecule complex. <i>Journal of Physiology</i> , 2009, 587, 2365-2373.	1.3	37
50	Inhibition of Inflammatory Species by Titanium Surfaces. <i>Clinical Orthopaedics and Related Research</i> , 2000, 372, 280-289.	0.7	36
51	Uniaxial strain system to investigate strain rate regulation in vitro. <i>Review of Scientific Instruments</i> , 2001, 72, 2415-2422.	0.6	35
52	Strain and strain rate activation of G proteins in human endothelial cells. <i>Biochemical and Biophysical Research Communications</i> , 2002, 299, 258-262.	1.0	35
53	Anti-inflammatory properties of micropatterned titanium coatings. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 77A, 43-49.	2.1	35
54	Strain Rate Mechanotransduction in Aligned Human Vascular Smooth Muscle Cells. <i>Annals of Biomedical Engineering</i> , 2003, 31, 239-249.	1.3	34

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55	Skeletal Adaptation to Intramedullary Pressure-Induced Interstitial Fluid Flow Is Enhanced in Mice Subjected to Targeted Osteocyte Ablation. <i>PLoS ONE</i> , 2012, 7, e33336.	1.1	34
56	Heparan Sulfates Mediate the Interaction between Platelet Endothelial Cell Adhesion Molecule-1 (PECAM-1) and the G α q/11 Subunits of Heterotrimeric G Proteins. <i>Journal of Biological Chemistry</i> , 2014, 289, 7413-7424.	1.6	34
57	Activation of G Proteins Mediates Flow-Induced Prostaglandin E2 Production in Osteoblasts. , 0, .		34
58	Efficacy of Different Nitric Oxide-Based Strategies in Preventing Experimental Cerebral Malaria by <i>Plasmodium berghei</i> ANKA. <i>PLoS ONE</i> , 2012, 7, e32048.	1.1	33
59	Titanate biomaterials with enhanced antiinflammatory properties. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 80A, 480-485.	2.1	31
60	Fluid flow increases membrane permeability to merocyanine 540 in human endothelial cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1994, 1191, 209-218.	1.4	29
61	Shear stress induces G α q/11 activation independently of G protein-coupled receptor activation in endothelial cells. <i>American Journal of Physiology - Cell Physiology</i> , 2017, 312, C428-C437.	2.1	29
62	Yoda1-induced phosphorylation of Akt and ERK1/2 does not require Piezo1 activation. <i>Biochemical and Biophysical Research Communications</i> , 2018, 497, 220-225.	1.0	29
63	Extracellular signal-regulated kinase activation and endothelin-1 production in human endothelial cells exposed to vibration. <i>Journal of Physiology</i> , 2004, 555, 565-572.	1.3	28
64	Evidence for the role of G-proteins in flow stimulation of dinoflagellate bioluminescence. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007, 292, R2020-R2027.	0.9	28
65	S-nitrosoglutathione Prevents Experimental Cerebral Malaria. <i>Journal of NeuroImmune Pharmacology</i> , 2012, 7, 477-487.	2.1	28
66	NO and CO binding profiles of hemoglobin vesicles as artificial oxygen carriers. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1441-1447.	1.1	27
67	G α q/11-mediated intracellular calcium responses to retrograde flow in endothelial cells. <i>American Journal of Physiology - Cell Physiology</i> , 2012, 303, C467-C473.	2.1	23
68	Quantification of Lacunarâ€œCanalicular Interstitial Fluid Flow Through Computational Modeling of Fluorescence Recovery After Photobleaching. <i>Cellular and Molecular Bioengineering</i> , 2010, 3, 296-306.	1.0	22
69	The use of dinoflagellate bioluminescence to characterize cell stimulation in bioreactors. <i>Biotechnology and Bioengineering</i> , 2003, 83, 93-103.	1.7	21
70	Slow and continuous delivery of a low dose of nimodipine improves survival and electrocardiogram parameters in rescue therapy of mice with experimental cerebral malaria. <i>Malaria Journal</i> , 2013, 12, 138.	0.8	21
71	Early VEGFR2 activation in response to flow is VEGF-dependent and mediated by MMP activity. <i>Biochemical and Biophysical Research Communications</i> , 2013, 434, 641-646.	1.0	20
72	Maturation enhances fluid shear-induced activation of eNOS in perfused ovine carotid arteries. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 289, H2220-H2227.	1.5	19

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73	Cerebral tissue oxygenation impairment during experimental cerebral malaria. <i>Virulence</i> , 2013, 4, 686-697.	1.8	19
74	Distinctive Subcellular Akt Responses to Shear Stress in Endothelial Cells. <i>Journal of Cellular Biochemistry</i> , 2014, 115, 121-129.	1.2	19
75	Rapid flow-induced activation of Ca^{2+} is independent of Piezo1 activation. <i>American Journal of Physiology - Cell Physiology</i> , 2019, 316, C741-C752.	2.1	19
76	An In Vitro Evaluation of an Artificial Heart. <i>ASAIO Transactions</i> , 1991, 37, 27-32.	0.2	18
77	NO-Donor Dihydroartemisinin Derivatives as Multitarget Agents for the Treatment of Cerebral Malaria. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 7895-7899.	2.9	18
78	Regulation of G Protein-Coupled Receptor Activities by the Platelet-Endothelial Cell Adhesion Molecule, PECAM-1. <i>Biochemistry</i> , 2008, 47, 9029-9039.	1.2	17
79	Transdermal Glyceryl Trinitrate as an Effective Adjunctive Treatment with Artemether for Late-Stage Experimental Cerebral Malaria. <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 5462-5471.	1.4	17
80	Effects of Flow on Anchorage-Dependent Mammalian Cells' Secreted Products. , 1993, , 139-192.		16
81	Osteoblast hydraulic conductivity is regulated by calcitonin and parathyroid hormone. <i>Journal of Bone and Mineral Research</i> , 1996, 11, 114-124.	3.1	15
82	A New Mock Circulatory Loop and Its Application to the Study of Chemical Additive and Aortic Pressure Effects on Hemolysis in the Penn State Electric Ventricular Assist Device. <i>Artificial Organs</i> , 1994, 18, 397-407.	1.0	14
83	Stretch activation of GTP-binding proteins in C2C12 myoblasts. <i>Experimental Cell Research</i> , 2004, 292, 265-273.	1.2	14
84	A lactate dehydrogenase ELISA-based assay for the in vitro determination of Plasmodium berghei sensitivity to anti-malarial drugs. <i>Malaria Journal</i> , 2012, 11, 366.	0.8	14
85	Reversal of cerebrovascular constriction in experimental cerebral malaria by L-arginine. <i>Scientific Reports</i> , 2018, 8, 15957.	1.6	14
86	Cell Membrane Fluidity Changes and Membrane Undulations Observed Using a Laser Scattering Technique. <i>Annals of Biomedical Engineering</i> , 2004, 32, 531-536.	1.3	13
87	Bone Cell Responses to Fluid Flow. , 2003, 80, 381-398.		8
88	Hemoglobin Serves to Protect Plasmodium Parasites from Nitric Oxide and Reactive Oxygen Species. <i>Journal of Investigative Medicine</i> , 2005, 53, 246-253.	0.7	7
89	A Chronic Scheme of Cranial Window Preparation to Study Pial Vascular Reactivity in Murine Cerebral Malaria. <i>Microcirculation</i> , 2013, 20, 394-404.	1.0	6
90	Exogenous, basal, and flow-induced nitric oxide production and endothelial cell proliferation. <i>Journal of Cellular Physiology</i> , 1997, 171, 252-258.	2.0	5

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91	Shear sensitivity in animal cell culture. <i>Current Opinion in Biotechnology</i> , 1993, 4, 193-196.	3.3	4
92	Flow Effects on Endothelial Cell Signal Transduction, Function, and Mediator Release. , 1995, , 85-116.		4
93	<title>Fluorescent molecular rotor for the study of membrane fluidity in endothelial cells under fluid shear stress</title>. , 2000, 3921, 101.		3
94	Mechanotransduction by Membrane-Mediated Activation of G-Protein Coupled Receptors and G-Proteins. , 0, , 89-119.		0
95	Shear Stress Mechanotransduction and the Flow Properties of Blood. , 2006, , 93-101.		0
96	Shear Stress-Induced Gene Expression in Human Endothelial Cells. , 1993, , 155-166.		0