Mariappan Muthuchamy

List of Publications by Year
in descending order

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57 papers	1,749 citations	279798 23 h-index	276875 41 g-index
59 all docs	59 docs citations	59 times ranked	1417 citing authors

#	Article	IF	Citations
1	Mouse Model of a Familial Hypertrophic Cardiomyopathy Mutation in Î±-Tropomyosin Manifests Cardiac Dysfunction. Circulation Research, 1999, 85, 47-56.	4.5	152
2	Molecular and functional analyses of the contractile apparatus in lymphatic muscle. FASEB Journal, 2003, 17, 1-25.	0.5	147
3	Molecular and Physiological Effects of Overexpressing Striated Muscle Î²-Tropomyosin in the Adult Murine Heart. Journal of Biological Chemistry, 1995, 270, 30593-30603.	3.4	137
4	Molecular Regulation of Lymphatic Contractility. Annals of the New York Academy of Sciences, 2008, 1131, 89-99.	3.8	109
5	Exchange of Î²- for Î±-Tropomyosin in Hearts of Transgenic Mice Induces Changes in Thin Filament Response to Ca2+, Strong Cross-bridge Binding, and Protein Phosphorylation. Journal of Biological Chemistry, 1996, 271, 11611-11614.	3.4	82
6	Correlation Between Myofilament Response to Ca ²⁺ and Altered Dynamics of Contraction and Relaxation in Transgenic Cardiac Cells That Express Î²-Tropomyosin. Circulation Research, 1999, 84, 745-751.	4.5	80
7	Impairments in the intrinsic contractility of mesenteric collecting lymphatics in a rat model of metabolic syndrome. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H643-H653.	3.2	78
8	Modulation of lymphatic muscle contractility by the neuropeptide substance P. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 295, H587-H597.	3.2	75
9	Inhibition of myosin light chain phosphorylation decreases rat mesenteric lymphatic contractile activity. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H726-H734.	3.2	61
10	Regulatory mechanisms in lymphatic vessel contraction under normal and inflammatory conditions. Pathophysiology, 2010, 17, 263-276.	2.2	61
11	Emerging trends in the pathophysiology of lymphatic contractile function. Seminars in Cell and Developmental Biology, 2015, 38, 55-66.	5.0	61
12	Lymphatic system: a vital link between metabolic syndrome and inflammation. Annals of the New York Academy of Sciences, 2010, 1207, E94-102.	3.8	59
13	Lymphatic Filariasis: Perspectives on Lymphatic Remodeling and Contractile Dysfunction in Filarial Disease Pathogenesis. Microcirculation, 2013, 20, 349-364.	1.8	58
14	MicroRNA signature of inflamed lymphatic endothelium and role of miR-9 in lymphangiogenesis and inflammation. American Journal of Physiology - Cell Physiology, 2015, 309, C680-C692.	4.6	53
15	Hyperglycemiaâ€•and hyperinsulinemiaâ€‹induced insulin resistance causes alterations in cellular bioenergetics and activation of inflammatory signaling in lymphatic muscle. FASEB Journal, 2017, 31, 2744-2759.	0.5	51
16	Lipopolysaccharide modulates neutrophil recruitment and macrophage polarization on lymphatic vessels and impairs lymphatic function in rat mesentery. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H2042-H2057.	3.2	46
17	Ectopic expression of tropomyosin promotes myofibrillogenesis in mutant axolotl hearts. , 1998, 213, 412-420.		39
18	Calcium sensitivity and cooperativity of permeabilized rat mesenteric lymphatics. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2008, 294, R1524-R1532.	1.8	39

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19	Substance P Activates Both Contractile and Inflammatory Pathways in Lymphatics Through the Neurokinin Receptors NK1R and NK3R. Microcirculation, 2011, 18, 24-35.	1.8	35
20	Differential effects of myosin light chain kinase inhibition on contractility, force development and myosin light chain 20 phosphorylation of rat cervical and thoracic duct lymphatics. Journal of Physiology, 2011, 589, 5415-5429.	2.9	34
21	Macrophage alterations within the mesenteric lymphatic tissue are associated with impairment of lymphatic pump in metabolic syndrome. Microcirculation, 2016, 23, 558-570.	1.8	33
22	Blunted flow-mediated responses and diminished nitric oxide synthase expression in lymphatic thoracic ducts of a rat model of metabolic syndrome. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H385-H393.	3.2	27
23	PKC activation increases Ca²⁺sensitivity of permeabilized lymphatic muscle via myosin light chain 20 phosphorylation-dependent and -independent mechanisms. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H674-H683.	3.2	26
24	Structureâ€“function relationships of citrus limonoids on p38 MAP kinase activity in human aortic smooth muscle cells. European Journal of Pharmacology, 2011, 670, 44-49.	3.5	25
25	Charged residue changes in the carboxy-terminus of Î±-tropomyosin alter mouse cardiac muscle contractility. Journal of Physiology, 2004, 556, 531-543.	2.9	22
26	Maximum shortening velocity of lymphatic muscle approaches that of striated muscle. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 305, H1494-H1507.	3.2	22
27	Insulin resistance disrupts cell integrity, mitochondrial function, and inflammatory signaling in lymphatic endothelium. Microcirculation, 2018, 25, e12492.	1.8	18
28	Interplay between the overlapping ends of tropomyosin and the N terminus of cardiac troponin T affects tropomyosin states on actin. FASEB Journal, 2013, 27, 3848-3859.	0.5	15
29	Atomic force microscopy investigations of fibronectin and Î±5Î²1-integrin signaling in neuroplasticity and seizure susceptibility in experimental epilepsy. Epilepsy Research, 2017, 138, 71-80.	1.6	14
30	Roles of sarcoplasmic reticulum Ca2+ ATPase pump in the impairments of lymphatic contractile activity in a metabolic syndrome rat model. Scientific Reports, 2020, 10, 12320.	3.3	14
31	Lymphangion-chip: a microphysiological system which supports co-culture and bidirectional signaling of lymphatic endothelial and muscle cells. Lab on A Chip, 2021, 22, 121-135.	6.0	13
32	Lymphatic Collecting Vessel: New Perspectives on Mechanisms of Contractile Regulation and Potential Lymphatic Contractile Pathways to Target in Obesity and Metabolic Diseases. Frontiers in Pharmacology, 2022, 13, 848088.	3.5	13
33	Charged residue alterations in the inner-core domain and carboxy-terminus of Î±-tropomyosin differentially affect mouse cardiac muscle contractility. Journal of Physiology, 2004, 561, 777-791.	2.9	9
34	Changes in end-to-end interactions of tropomyosin affect mouse cardiac muscle dynamics. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H552-H563.	3.2	8
35	Citrus nomilin down-regulates TNF-Î±-induced proliferation of aortic smooth muscle cells via apoptosis and inhibition of IÎºB. European Journal of Pharmacology, 2017, 811, 93-100.	3.5	8
36	Ca²⁺ sensitization of cardiac myofilament proteins contributes to exercise training-enhanced myocardial function in a porcine model of chronic occlusion. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H1579-H1587.	3.2	6

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37	Instability in the Central Region of Tropomyosin Modulates the Function of Its Overlapping Ends. Biophysical Journal, 2013, 105, 2104-2113.	0.5	6
38	Inflammatory state of lymphatic vessels and miRNA profiles associated with relapse in ovarian cancer patients. PLoS ONE, 2020, 15, e0230092.	2.5	4
39	LPS mediated decreases in immune cells recruitment on or near lymphatics impairs lymphatic contractility. FASEB Journal, 2013, 27, 681.5.	0.5	2
40	Intracellular calcium dynamics of lymphatic endothelial and muscle cells co-cultured in a Lymphangion-Chip under pulsatile flow. Analyst, The, 2022, 147, 2953-2965.	3.5	2
41	Analysis of Lymphatic Vessel Formation by Whole-Mount Immunofluorescence Staining. Methods in Molecular Biology, 2021, 2319, 153-159.	0.9	1
42	Isolation of Lymphatic Muscle Cells (LMCs) from Rat Mesentery. Methods in Molecular Biology, 2021, 2319, 137-141.	0.9	1
43	Effects of Câ€reactive protein on rat mesenteric lymphatic contractility. FASEB Journal, 2006, 20, .	0.5	1
44	Low density lipoprotein modulates rat mesenteric lymphatic pumping. FASEB Journal, 2009, 23, 764.1.	0.5	1
45	Atomic force microscopy study of ECMâ€integrin modulation of neuroplasticity in the hippocampal dentate granule cells in epilepsy. FASEB Journal, 2012, 26, 672.8.	0.5	1
46	Inhibition of myosin light chain phosphorylation decreases rat mesenteric lymphatic pump function. FASEB Journal, 2006, 20, A279.	0.5	0
47	Regulation of lymphatic contractility by myosin light chain phosphorylation. FASEB Journal, 2007, 21, A485.	0.5	0
48	Differential Muscle Cell Recruitments and Functions in Mouse Lymphatic Tissue Beds. FASEB Journal, 2008, 22, 392.4.	0.5	0
49	CULTURE OF LYMPHATIC VESSELS AND DEVELOPMENT OF TRANSFECTION TECHNIQUES TO TARGET GENES INVOLVED IN REGULATION OF LYMPHATIC CONTRACTILITY. FASEB Journal, 2009, 23, 764.3.	0.5	0
50	AGING AND LYMPHATIC CONTRACTILITY. FASEB Journal, 2009, 23, 764.4.	0.5	0
51	Mechanical and contractile characteristics of rat thoracic duct and cervical lymphatics. FASEB Journal, 2010, 24, 972.9.	0.5	0
52	Substance P activates both inflammatory and contractile signaling pathways in the lymphatics through neurokinin receptors. FASEB Journal, 2010, 24, 777.15.	0.5	0
53	Development of siRNA strategy to knockdown the regulatory contractile proteins in lymphatic muscle. FASEB Journal, 2010, 24, lb678.	0.5	0
54	Ca2+â€related proteins associated with intracellular stores in rat lymphatics. FASEB Journal, 2012, 26, 677.5.	0.5	0

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55	TNFâ€Î± mediated regulation of myosin light chain 20 phosphorylation in lymphatic muscle. FASEB Journal, 2012, 26, 677.6.	0.5	0
56	Immune cell mediated regulation of lymphatic contractility during inflammation. FASEB Journal, 2013, 27, 1131.17.	0.5	0
57	SUBSTANCE P REGULATES INFLAMMATORY PATHWAYS IN LYMPHATIC MUSCLE. FASEB Journal, 2018, 32, 576.6.	0.5	0