Michael J Davis

List of Publications by Year in Descending Order

129 papers	5,402 citations	40 h-index	72 g-index
139 ext. papers	6,128 ext. citations	4.7 avg, IF	5.74 L-index

#	Paper	IF	Citations
129	TRPM4 Inhibition: An Unexpected Mechanism of NO-Induced Vasodilatation.. *Function*, **2022**, 3, zqac007	6.1	
128	Ileitis-associated tertiary lymphoid organs arise at lymphatic valves and impede mesenteric lymph flow in response to tumor necrosis factor. *Immunity*, **2021**,	32.3	3
127	Foxo1 deletion promotes the growth of new lymphatic valves. *Journal of Clinical Investigation*, **2021**, 131,	15.9	5
126	Large-conductance calcium-activated K channels, rather than K channels, mediate the inhibitory effects of nitric oxide on mouse lymphatic pumping. *British Journal of Pharmacology*, **2021**, 178, 4119-4136	8.6	3
125	Demonstration of Functional Deficiencies in Popliteal Lymphatic Vessels From TNF-Transgenic Mice With Inflammatory Arthritis. *Frontiers in Physiology*, **2021**, 12, 745096	4.6	2
124	Scuba diving-related fatalities in New Zealand, 2007 to 2016.. *Diving and Hyperbaric Medicine*, **2021**, 51, 345-354	1	
123	Effects of Elevated Downstream Pressure and the Role of Smooth Muscle Cell Coupling through Connexin45 on Lymphatic Pacemaking. *Biomolecules*, **2020**, 10,	5.9	2
122	Kir6.1-dependent K channels in lymphatic smooth muscle and vessel dysfunction in mice with Kir6.1 gain-of-function. *Journal of Physiology*, **2020**, 598, 3107-3127	3.9	13
121	T-type, but not L-type, voltage-gated calcium channels are dispensable for lymphatic pacemaking and spontaneous contractions. *Scientific Reports*, **2020**, 10, 70	4.9	12
120	Simplified method to quantify valve back-leak uncovers severe mesenteric lymphatic valve dysfunction in mice deficient in connexins 43 and 37. *Journal of Physiology*, **2020**, 598, 2297-2310	3.9	7
119	RASA1-driven cellular export of collagen IV is required for the development of lymphovenous and venous valves in mice. *Development (Cambridge)*, **2020**, 147,	6.6	6
118	Ano1 mediates pressure-sensitive contraction frequency changes in mouse lymphatic collecting vessels. *Journal of General Physiology*, **2019**, 151, 532-554	3.4	15
117	The Regulation of Lymphatic Muscle Cell Contractile Activity by Intracellular Calcium Signals. *FASEB Journal*, **2019**, 33, 520.1	0.9	1
116	Differences in L-type Ca channel activity partially underlie the regional dichotomy in pumping behavior by murine peripheral and visceral lymphatic vessels. *American Journal of Physiology - Heart and Circulatory Physiology*, **2018**, 314, H991-H1010	5.2	36
115	Electrical Pacemaking in Lymphatic Vessels **2018**, 323-359		1
114	Methods for Assessing the Contractile Function of Mouse Lymphatic Vessels Ex Vivo. *Methods in Molecular Biology*, **2018**, 1846, 229-248	1.4	5
113	Characterization of Mouse Mesenteric Lymphatic Valve Structure and Function. *Methods in Molecular Biology*, **2018**, 1846, 97-129	1.4	9

112	Complementary Wnt Sources Regulate Lymphatic Vascular Development via PROX1-Dependent Wnt/β-Catenin Signaling. *Cell Reports*, **2018**, 25, 571-584.e5	10.6	35
111	Mechanisms of Connexin-Related Lymphedema. *Circulation Research*, **2018**, 123, 964-985	15.7	30
110	High-Salt Diet Causes Expansion of the Lymphatic Network and Increased Lymph Flow in Skin and Muscle of Rats. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2018**, 38, 2054-2064	9.4	22
109	Alpha -adrenergic stimulation selectively enhances endothelium-mediated vasodilation in rat cremaster arteries. *Physiological Reports*, **2018**, 6, e13703	2.6	8
108	Defective lymphatic valve development and chylothorax in mice with a lymphatic-specific deletion of Connexin43. *Developmental Biology*, **2017**, 421, 204-218	3.1	27
107	Calcium and electrical dynamics in lymphatic endothelium. *Journal of Physiology*, **2017**, 595, 7347-7368	3.9	23
106	Demonstration and Analysis of the Suction Effect for Pumping Lymph from Tissue Beds at Subatmospheric Pressure. *Scientific Reports*, **2017**, 7, 12080	4.9	23
105	Development and Characterization of A Novel Prox1-EGFP Lymphatic and Schlemm's Canal Reporter Rat. *Scientific Reports*, **2017**, 7, 5577	4.9	32
104	Experimental Models Used to Assess Lymphatic Contractile Function. *Lymphatic Research and Biology*, **2017**, 15, 331-342	2.3	17
103	RASA1 regulates the function of lymphatic vessel valves in mice. *Journal of Clinical Investigation*, **2017**, 127, 2569-2585	15.9	36
102	Lymphatic pumping: mechanics, mechanisms and malfunction. *Journal of Physiology*, **2016**, 594, 5749-5768	3.9	160
101	Is nitric oxide important for the diastolic phase of the lymphatic contraction/relaxation cycle?. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E105	11.5	7
100	CCR7 and IRF4-dependent dendritic cells regulate lymphatic collecting vessel permeability. *Journal of Clinical Investigation*, **2016**, 126, 1581-91	15.9	53
99	Network Scale Modeling of Lymph Transport and Its Effective Pumping Parameters. *PLoS ONE*, **2016**, 11, e0148384	3.7	28
98	Consequences of intravascular lymphatic valve properties: a study of contraction timing in a multi-lymphangion model. *American Journal of Physiology - Heart and Circulatory Physiology*, **2016**, 310, H847-60	5.2	20
97	Myogenic responses occur on a beat-to-beat basis in the resting human limb. *American Journal of Physiology - Heart and Circulatory Physiology*, **2015**, 308, H59-67	5.2	15
96	Myogenic responses occur on a beat-to-beat basis in the resting human limb. *American Journal of Physiology - Heart and Circulatory Physiology*, **2015**, 308, H554-5	5.2	1
95	Lymphatic vascular integrity is disrupted in type 2 diabetes due to impaired nitric oxide signalling. *Cardiovascular Research*, **2015**, 107, 89-97	9.9	79

94	Emerging trends in the pathophysiology of lymphatic contractile function. *Seminars in Cell and Developmental Biology*, **2015**, 38, 55-66	7.5	43
93	MicroRNA signature of inflamed lymphatic endothelium and role of miR-9 in lymphangiogenesis and inflammation. *American Journal of Physiology - Cell Physiology*, **2015**, 309, C680-92	5.4	40
92	FOXC2 and fluid shear stress stabilize postnatal lymphatic vasculature. *Journal of Clinical Investigation*, **2015**, 125, 3861-77	15.9	137
91	Role of bed nucleus of the stria terminalis and amygdala AMPA receptors in the development and expression of context conditioning and sensitization of startle by prior shock. *Brain Structure and Function*, **2014**, 219, 1969-82	4	24
90	PKC activation increases Ca□+ 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, H674-83	5.2	19
89	Electrophysiological properties of rat mesenteric lymphatic vessels and their regulation by stretch. *Lymphatic Research and Biology*, **2014**, 12, 66-75	2.3	33
88	The role of □adrenergic receptors in mediating beat-by-beat sympathetic vascular transduction in the forearm of resting man. *Journal of Physiology*, **2013**, 591, 3637-49	3.9	62
87	Constriction of isolated collecting lymphatic vessels in response to acute increases in downstream pressure. *Journal of Physiology*, **2013**, 591, 443-59	3.9	46
86	Genetic removal of basal nitric oxide enhances contractile activity in isolated murine collecting lymphatic vessels. *Journal of Physiology*, **2013**, 591, 2139-56	3.9	79
85	Permeability and contractile responses of collecting lymphatic vessels elicited by atrial and brain natriuretic peptides. *Journal of Physiology*, **2013**, 591, 5071-81	3.9	33
84	Maximum shortening velocity of lymphatic muscle approaches that of striated muscle. *American Journal of Physiology - Heart and Circulatory Physiology*, **2013**, 305, H1494-507	5.2	15
83	The unique and important role of the myogenic response in the lymphatic system **2013**, 27-31		
82	Depolarization of collecting lymphatic endothelium with acetylcholine or TRPV4 activation. *FASEB Journal*, **2013**, 27, 678.3	0.9	
81	Basal nitric oxide production in mouse collecting lymphatics does not enhance contractile activity. *FASEB Journal*, **2013**, 27, 681.9	0.9	
80	Perspective: physiological role(s) of the vascular myogenic response. *Microcirculation*, **2012**, 19, 99-114	2.9	78
79	Local Control of Microvascular Perfusion. *Colloquium Series on Integrated Systems Physiology From Molecule To Function*, **2012**, 4, 1-148		1
78	Independent and interactive effects of preload and afterload on the pump function of the isolated lymphangion. *American Journal of Physiology - Heart and Circulatory Physiology*, **2012**, 303, H809-24	5.2	48
77	Intrinsic increase in lymphangion muscle contractility in response to elevated afterload. *American Journal of Physiology - Heart and Circulatory Physiology*, **2012**, 303, H795-808	5.2	79

76	Regional heterogeneity of length-tension relationships in rat lymph vessels. *Lymphatic Research and Biology*, **2012**, 10, 14-9	2.3	26
75	Passive pressure-diameter relationship and structural composition of rat mesenteric lymphangions. *Lymphatic Research and Biology*, **2012**, 10, 152-63	2.3	30
74	Beat-to-beat fluctuations in blood flow in humans are more related between upper limbs than between lower limbs. *FASEB Journal*, **2012**, 26, 865.12	0.9	
73	Integrin-dependent and -independent potentiation of BKCa channel current by cell stretch. *FASEB Journal*, **2012**, 26, 870.11	0.9	
72	Differences in phosphorylation-mediated K+ channel regulation between vascular smooth muscle cells from cremaster and cerebral resistance vessels. *FASEB Journal*, **2012**, 26, 870.35	0.9	
71	Fibronectin increases the force production of mouse papillary muscles via β1 integrin. *Journal of Molecular and Cellular Cardiology*, **2011**, 50, 203-13	5.8	10
70	Substance P activates both contractile and inflammatory pathways in lymphatics through the neurokinin receptors NK1R and NK3R. *Microcirculation*, **2011**, 18, 24-35	2.9	32
69	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, 5415-29	3.9	26
68	The roles of integrins in mediating the effects of mechanical force and growth factors on blood vessels in hypertension. *Current Hypertension Reports*, **2011**, 13, 421-9	4.7	15
67	Spatial distribution and mechanical function of elastin in resistance arteries: a role in bearing longitudinal stress. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2011**, 31, 2889-96	9.4	59
66	Determinants of valve gating in collecting lymphatic vessels from rat mesentery. *American Journal of Physiology - Heart and Circulatory Physiology*, **2011**, 301, H48-60	5.2	110
65	Integrin-dependent and -independent potentiation of L-type Calcium Current (Cav1.2) by cell stretch. *FASEB Journal*, **2011**, 25, 1042.2	0.9	
64	Molecular Characterization of Large Conductance, Ca2+-activated, K+ Channels (BK) in Arteries from Cerebral and Skeletal Muscle Vasculatures. *FASEB Journal*, **2011**, 25, lb451	0.9	
63	Alpha5beta1 integrin engagement increases large conductance, Ca2+-activated K+ channel current and Ca2+ sensitivity through c-src-mediated channel phosphorylation. *Journal of Biological Chemistry*, **2010**, 285, 131-41	5.4	35
62	Antecedent hydrogen sulfide elicits an anti-inflammatory phenotype in postischemic murine small intestine: role of BK channels. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 299, H1554-67	5.2	40
61	Long-distance transportation of live isolated lymphatic vessels. *Lymphatic Research and Biology*, **2010**, 8, 189-92	2.3	3
60	Coordinated regulation of vascular Ca2+ and K+ channels by integrin signaling. *Advances in Experimental Medicine and Biology*, **2010**, 674, 69-79	3.6	22
59	Large conductance, Ca2+-activated K+ channels (BKCa) and arteriolar myogenic signaling. *FEBS Letters*, **2010**, 584, 2033-42	3.8	91

58	A Fibronectin Fragment Elicits Vasodilatation and Alters Myogenic Responsiveness of Skeletal Muscle Arterioles. *FASEB Journal*, **2010**, 24, 600.4	0.9	
57	Glycated proteins inhibit K channels in isolated vascular smooth muscle cells. *FASEB Journal*, **2010**, 24, 976.3	0.9	
56	Manipulation of smooth muscle BKCa using subunit directed siRNA. *FASEB Journal*, **2010**, 24, 777.12	0.9	
55	Substance P activates both inflammatory and contractile signaling pathways in the lymphatics through neurokinin receptors. *FASEB Journal*, **2010**, 24, 777.15	0.9	
54	Development of siRNA strategy to knockdown the regulatory contractile proteins in lymphatic muscle. *FASEB Journal*, **2010**, 24, lb678	0.9	
53	Inhibition of myosin light chain phosphorylation decreases rat mesenteric lymphatic contractile activity. *American Journal of Physiology - Heart and Circulatory Physiology*, **2009**, 297, H726-34	5.2	49
52	Myogenic constriction and dilation of isolated lymphatic vessels. *American Journal of Physiology - Heart and Circulatory Physiology*, **2009**, 296, H293-302	5.2	57
51	Rate-sensitive contractile responses of lymphatic vessels to circumferential stretch. *Journal of Physiology*, **2009**, 587, 165-82	3.9	42
50	Heterogeneity in function of small artery smooth muscle BKCa: involvement of the beta1-subunit. *Journal of Physiology*, **2009**, 587, 3025-44	3.9	58
49	Methods for lymphatic vessel culture and gene transfection. *Microcirculation*, **2009**, 16, 615-28	2.9	32
48	Therapeutic potential of pharmacologically targeting arteriolar myogenic tone. *Trends in Pharmacological Sciences*, **2009**, 30, 363-74	13.2	64
47	Relative lack of □1-subunit-mediated regulation of BKCa in cremaster arteriolar smooth muscle. *FASEB Journal*, **2009**, 23, 627.10	0.9	
46	CULTURE OF LYMPHATIC VESSELS AND DEVELOPMENT OF TRANSFECTION TECHNIQUES TO TARGET GENES INVOLVED IN REGULATION OF LYMPHATIC CONTRACTILITY. *FASEB Journal*, **2009**, 23, 764.3	0.9	
45	Mechanisms underlying smooth muscle Ca2+ waves in cremaster muscle arterioles. *FASEB Journal*, **2009**, 23, 767.8	0.9	5
44	Myogenic constriction and dilation of isolated lymphatic vessels. *FASEB Journal*, **2009**, 23, 764.7	0.9	
43	Exploiting the cellular actions of SKCa and IKCa channels to manipulate endothelial function and vascular tone. *FASEB Journal*, **2009**, 23, 627.6	0.9	
42	Fast dilatory responses to potassium in arterioles of the rat gastrocnemius muscle (G): impact of branch order. *FASEB Journal*, **2009**, 23, 948.1	0.9	
41	Fast calcium responses along endothelium of arteriolar networks during blood flow. *FASEB Journal*, **2009**, 23, 948.18	0.9	

40	Roles of c-Src and PKC in production of persistent calcium sparklet activity. *FASEB Journal*, **2009**, 23, 1000.19	0.9	
39	Potentiation of large conductance, Ca2+-activated K+ (BK) channels by alpha5beta1 integrin activation in arteriolar smooth muscle. *Journal of Physiology*, **2008**, 586, 1699-713	3.9	46
38	Local Regulation of Microvascular Perfusion **2008**, 161-284		7
37	Modulation of lymphatic muscle contractility by the neuropeptide substance P. *American Journal of Physiology - Heart and Circulatory Physiology*, **2008**, 295, H587-97	5.2	64
36	Calcium sensitivity and cooperativity of permeabilized rat mesenteric lymphatics. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2008**, 294, R1524-32	3.2	35
35	ANTECEDENT HYDROGEN SULFIDE ELICITS AN ANTI-INFLAMMATORY PHENOTYPE IN POSTISCHEMIC MURINE SMALL INTESTINE: ROLE OF BKCa CHANNEL. *FASEB Journal*, **2008**, 22, 730.37	0.9	
34	Control of microvascular tube assembly by endothelial cell-pericyte interactions. *FASEB Journal*, **2008**, 22, 383.1	0.9	
33	An automated method to control preload by compensation for stress relaxation in spontaneously contracting, isometric rat mesenteric lymphatics. *Microcirculation*, **2007**, 14, 603-12	2.9	10
32	Length-dependence of lymphatic phasic contractile activity under isometric and isobaric conditions. *Microcirculation*, **2007**, 14, 613-25	2.9	38
31	Length-tension relationships of small arteries, veins, and lymphatics from the rat mesenteric microcirculation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 292, H1943-52	5.2	59
30	Coupling a change in intraluminal pressure to vascular smooth muscle depolarization: still stretching for an explanation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 292, H2570-2	5.2	14
29	Development of image-based measurement of Em, Ca2+ and arteriolar dimensions. *FASEB Journal*, **2007**, 21, A845	0.9	
28	Properties of the large conductance K+ channel (BKCa) in skeletal muscle arterioles. *FASEB Journal*, **2007**, 21, A846	0.9	
27	PRESSURE-VOLUME RELATIONSHIPS OF RAT MESENTERIC LYMPHATIC VESSELS IN RESPONSE TO CONTROLLED PRELOAD AND AFTERLOAD STEPS. *FASEB Journal*, **2007**, 21, A485	0.9	1
26	RATE-SENSITIVE CONTRACTILE RESPONSES OF RAT MESENTERIC LYMPHATICS TO CIRCUMFERENTIAL STRETCH. *FASEB Journal*, **2007**, 21, A485	0.9	3
25	Integrin receptor activation triggers converging regulation of Cav1.2 calcium channels by c-Src and protein kinase A pathways. *Journal of Biological Chemistry*, **2006**, 281, 14015-25	5.4	68
24	Automated measurement of diameter and contraction waves of cannulated lymphatic microvessels. *Lymphatic Research and Biology*, **2006**, 4, 3-10	2.3	29
23	Arteriolar myogenic signalling mechanisms: Implications for local vascular function. *Clinical Hemorheology and Microcirculation*, **2006**, 34, 67-79	2.5	87

22	An improved, computer-based method to automatically track internal and external diameter of isolated microvessels. *Microcirculation*, **2005**, 12, 361-72	2.9	44
21	alphavbeta3- and alpha5beta1-integrin blockade inhibits myogenic constriction of skeletal muscle resistance arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2005**, 289, H322-9	5.2	95
20	Regulation of Ca2+-dependent K+ current by alphavbeta3 integrin engagement in vascular endothelium. *Journal of Biological Chemistry*, **2004**, 279, 12959-66	5.4	27
19	Regional variations of contractile activity in isolated rat lymphatics. *Microcirculation*, **2004**, 11, 477-92	2.9	145
18	Force-velocity relationship of myogenically active arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2002**, 282, H165-74	5.2	17
17	Inhibition of the active lymph pump by flow in rat mesenteric lymphatics and thoracic duct. *Journal of Physiology*, **2002**, 540, 1023-37	3.9	196
16	Regulation of ion channels by integrins. *Cell Biochemistry and Biophysics*, **2002**, 36, 41-66	3.2	55
15	Inhibition of the active lymph pump by flow in rat mesenteric lymphatics and thoracic duct **2002**, 540, 1023		2
14	Inhibition of the active lymph pump by flow in rat mesenteric lymphatics and thoracic duct **2002**, 540, 1023		9
13	Regulation of the L-type calcium channel by alpha 5beta 1 integrin requires signaling between focal adhesion proteins. *Journal of Biological Chemistry*, **2001**, 276, 30285-92	5.4	131
12	Invited review: arteriolar smooth muscle mechanotransduction: Ca(2+) signaling pathways underlying myogenic reactivity. *Journal of Applied Physiology*, **2001**, 91, 973-83	3.7	224
11	Characterization of stretch-activated cation current in coronary smooth muscle cells. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 280, H1751-61	5.2	65
10	Integrins and mechanotransduction of the vascular myogenic response. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 280, H1427-33	5.2	132
9	Determinants of cardiac function: simulation of a dynamic cardiac pump for physiology instruction. *American Journal of Physiology - Advances in Physiology Education*, **2001**, 25, 13-35	1.9	15
8	Transient increases in diameter and [Ca(2+)](i) are not obligatory for myogenic constriction. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H345-52	5.2	45
7	Regulation of tissue injury responses by the exposure of matricryptic sites within extracellular matrix molecules. *American Journal of Pathology*, **2000**, 156, 1489-98	5.8	349
6	Signaling mechanisms underlying the vascular myogenic response. *Physiological Reviews*, **1999**, 79, 387-423	47.9	788
5	Modulation of calcium current in arteriolar smooth muscle by alphav beta3 and alpha5 beta1 integrin ligands. *Journal of Cell Biology*, **1998**, 143, 241-52	7.3	159

4	Role of K+ channels in arteriolar vasodilation mediated by integrin interaction with RGD-containing peptide. *American Journal of Physiology - Heart and Circulatory Physiology*, **1998**, 275, H1449-54	5.2	31
3	Integrin signaling transduces shear stress--dependent vasodilation of coronary arterioles. *Circulation Research*, **1997**, 80, 320-6	15.7	128
2	Modulation of Substance P-Induced K+ Current in Coronary Endothelium. *Endothelium: Journal of Endothelial Cell Research*, **1996**, 4, 189-197		
1	Multiple Ionic Mechanisms Activated by Bradykinin in Coronary Venular Endothelial Cells. *Endothelium: Journal of Endothelial Cell Research*, **1996**, 4, 29-40		2