Virginia H Huxley

List of Publications by Year in Descending Order

98 papers	2,388 citations	27 h-index	45 g-index
111 ext. papers	2,568 ext. citations	4.2 avg, IF	4.85 L-index

#	Paper	IF	Citations
98	Microvascular Sex- and Age- Dependent Phosphodiesterase Expression. *Frontiers in Aging*, **2021**, 2,	2.5	1
97	Multi-focus Image Fusion for Confocal Microscopy Using U-Net Regression Map **2021**, 2020, 4317-4323		1
96	Quantitative Study of the Coupling Among Cardiovascular System, Lymphatic System and Interstitial Space. *Springer Proceedings in Mathematics and Statistics*, **2021**, 579-589	0.2	
95	Fluid and protein exchange in microvascular networks: Importance of modelling heterogeneity in geometrical and biophysical properties. *Journal of Physiology*, **2021**, 599, 4597-4624	3.9	
94	Mosaicing of Dynamic Mesentery Video with Gradient Blending **2020**,		2
93	Deep U-Net Regression and Hand-Crafted Feature Fusion for Accurate Blood Vessel Segmentation **2019**,		7
92	Cardiovascular Function and Ballistocardiogram: A Relationship Interpreted via Mathematical Modeling. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 2906-2917	5	24
91	Complex Non-sinus-associated Pachymeningeal Lymphatic Structures: Interrelationship With Blood Microvasculature. *Frontiers in Physiology*, **2019**, 10, 1364	4.6	3
90	Sex-Specific Characteristics of the Microcirculation. *Advances in Experimental Medicine and Biology*, **2018**, 1065, 307-328	3.6	34
89	Sex differences influencing micro- and macrovascular endothelial phenotype in vitro. *Journal of Physiology*, **2018**, 596, 3929-3949	3.9	22
88	Patch-Based Semantic Segmentation for Detecting Arterioles and Venules in Epifluorescence Imagery **2018**, 2018,		2
87	Deep Learning Segmentation for Epifluorescence Microscopy Images. *Microscopy and Microanalysis*, **2017**, 23, 140-141	0.5	2
86	Microvasculature segmentation of arterioles using deep CNN **2017**,		11
85	Estrogen-Dependent Changes in Dura Mater Microvasculature Add New Insights to the Pathogenesis of Headache. *Frontiers in Neurology*, **2017**, 8, 549	4.1	4
84	Random Forests for Dura Mater Microvasculature Segmentation Using Epifluorescence Images. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 2901-2904	0.9	11
83	Confocal Vessel Structure Segmentation with Optimized Feature Bank and Random Forests **2016**, 2016,		5
82	Multiquadric Spline-Based Interactive Segmentation of Vascular Networks. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 5913-5916	0.9	4

81	MULTISCALE TENSOR ANISOTROPIC FILTERING OF FLUORESCENCE MICROSCOPY FOR DENOISING MICROVASCULATURE **2015**, 2015, 540-543	1.5	8
80	Multi-focus image fusion using epifluorescence microscopy for robust vascular segmentation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 4735-8	0.9	10
79	The P2Y Receptor Interacts with VE-Cadherin and VEGF Receptor-2 to Regulate Rac1 Activity in Endothelial Cells. *Journal of Biomedical Science and Engineering*, **2014**, 7, 1105-1121	0.7	9
78	Endothelial barrier dysfunction in diabetic conduit arteries: a novel method to quantify filtration. *American Journal of Physiology - Heart and Circulatory Physiology*, **2013**, 304, H398-405	5.2	4
77	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
76	Pulsed estrogen therapy prevents post-OVX porcine dura mater microvascular network weakening via a PDGF-BB-dependent mechanism. *PLoS ONE*, **2013**, 8, e82900	3.7	14
75	Sex-specific endothelial cell response to insulin. *FASEB Journal*, **2013**, 27, 678.4	0.9	
74	Estrogen-dependent regulation of endothelial connexin 43. *FASEB Journal*, **2012**, 26, lb606	0.9	
73	Lymphatic fluid: exchange mechanisms and regulation. *Journal of Physiology*, **2011**, 589, 2935-43	3.9	42
72	The Lymphatic Vasculature as a Participant in Microvascular Exchange. *Annual Update in Intensive Care and Emergency Medicine*, **2011**, 287-296	0.2	
71	In vivo determination of collecting lymphatic vessel permeability to albumin: a role for lymphatics in exchange. *Journal of Physiology*, **2010**, 588, 243-54	3.9	61
70	Intrinsic sex-specific differences in microvascular endothelial cell phosphodiesterases. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 298, H1146-54	5.2	53
69	Reverse engineering of oxygen transport in the lung: adaptation to changing demands and resources through space-filling networks. *PLoS Computational Biology*, **2010**, 6, e1000902	5	19
68	Cardiovascular sex differences influencing microvascular exchange. *Cardiovascular Research*, **2010**, 87, 230-42	9.9	17
67	Capillary Fluid Exchange: Regulation, Functions, and Pathology. *Colloquium Series on Integrated Systems Physiology From Molecule To Function*, **2010**, 2, 1-94		54
66	Synthetic galectin-3 inhibitor increases metastatic cancer cell sensitivity to taxol-induced apoptosis in vitro and in vivo. *Neoplasia*, **2009**, 11, 901-9	6.4	44
65	PDGF/VEGF system activation and angiogenesis following initial post ovariectomy meningeal microvessel loss. *Cell Cycle*, **2008**, 7, 1385-90	4.7	5
64	Liposomal preparation for the in vivo monitoring of osmolality. *FASEB Journal*, **2008**, 22, 927.4	0.9	

63	Modification of a calcein-based assay for monitoring proteolytic activity in tissue suffusate. *FASEB Journal*, **2008**, 22, 927.5	0.9	
62	Sexual and Maturational Difference in Phosphodiesterase mRNA Expression in Rat Skeletal Muscle Microvascular Endothelial Cells. *FASEB Journal*, **2008**, 22, 1145.4	0.9	
61	Galectin-3 as a potential therapeutic target in tumors arising from malignant endothelia. *Neoplasia*, **2007**, 9, 662-70	6.4	77
60	Adaptation of coronary microvascular exchange in arterioles and venules to exercise training and a role for sex in determining permeability responses. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 293, H1196-205	5.2	18
59	Microvascular network remodeling in dura mater of ovariectomized pigs: role for angiopoietin-1 in estrogen-dependent control of vascular stability. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 293, H1131-7	5.2	18
58	Sex and the cardiovascular system: the intriguing tale of how women and men regulate cardiovascular function differently. *American Journal of Physiology - Advances in Physiology Education*, **2007**, 31, 17-22	1.9	100
57	Acute change in plasma estradiol by insulin in male rats. *FASEB Journal*, **2007**, 21, A488	0.9	
56	Adenosine A2A receptor modulation of juvenile female rat skeletal muscle microvessel permeability. *American Journal of Physiology - Heart and Circulatory Physiology*, **2006**, 291, H3094-105	5.2	16
55	Macromolecule permeability of in situ and excised rodent skeletal muscle arterioles and venules. *American Journal of Physiology - Heart and Circulatory Physiology*, **2006**, 290, H474-80	5.2	36
54	Inhibition of spontaneous breast cancer metastasis by anti-Thomsen-Friedenreich antigen monoclonal antibody JAA-F11. *Neoplasia*, **2006**, 8, 939-48	6.4	72
53	Permeability response of the rat mesenteric microvasculature to insulin. *Clinical Hemorheology and Microcirculation*, **2006**, 34, 259-63	2.5	9
52	Mechanical entrapment is insufficient and intercellular adhesion is essential for metastatic cell arrest in distant organs. *Neoplasia*, **2005**, 7, 522-7	6.4	136
51	Differential coronary microvascular exchange responses to adenosine: roles of receptor and microvessel subtypes. *Microcirculation*, **2005**, 12, 313-26	2.9	25
50	Sexual dimorphism in the permeability response of coronary microvessels to adenosine. *American Journal of Physiology - Heart and Circulatory Physiology*, **2005**, 288, H2006-13	5.2	21
49	Attenuation of endothelial dysfunction by exercise training in STZ-induced diabetic rats. *Clinical Hemorheology and Microcirculation*, **2005**, 32, 217-26	2.5	33
48	Evidence of porcine and human endothelium activation by cancer-associated carbohydrates expressed on glycoproteins and tumour cells. *Journal of Physiology*, **2004**, 554, 89-99	3.9	37
47	Continuous real time ex vivo epifluorescent video microscopy for the study of metastatic cancer cell interactions with microvascular endothelium. *Clinical and Experimental Metastasis*, **2003**, 20, 451-8	4.7	25
46	Fluorescent dyes modify properties of proteins used in microvascular research. *Microcirculation*, **2003**, 10, 221-31	2.9	20

45	Intravascular metastatic cancer cell homotypic aggregation at the sites of primary attachment to the endothelium. *Cancer Research*, **2003**, 63, 3805-11	10.1	189
44	Similar permeability responses to nitric oxide synthase inhibitors of venules from three animal species. *Microvascular Research*, **2002**, 64, 21-31	3.7	27
43	Microvascular Permeability in Inflammation **2001**, 65-79		1
42	In vivo visualization of cerebral microcirculation in systemic thermal injury. *Journal of Burn Care and Research*, **2000**, 21, 20-5		9
41	The microvasculature as a dynamic regulator of volume and solute exchange. *Clinical and Experimental Pharmacology and Physiology*, **2000**, 27, 847-54	3	31
40	Role of a glycocalyx on coronary arteriole permeability to proteins: evidence from enzyme treatments. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H1177-85	5.2	102
39	Differential effects of L-NAME on rat venular hydraulic conductivity. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 279, H2017-23	5.2	35
38	Leakage responses to L-NAME differ with the fluorescent dye used to label albumin. *American Journal of Physiology - Heart and Circulatory Physiology*, **1999**, 276, H333-9	5.2	23
37	What Do Measures of Flux Tell Us About Vascular Wall Biology?. *Microcirculation*, **1998**, 5, 109-116	2.9	6
36	What do measures of flux tell us about vascular wall biology?. *Microcirculation*, **1998**, 5, 109-16	2.9	4
35	Altered basal and adenosine-mediated protein flux from coronary arterioles isolated from exercise-trained pigs. *Acta Physiologica Scandinavica*, **1997**, 160, 315-25		17
34	Acid-induced increase in duodenal mucosal permeability is augmented by nitric oxide inhibition and vasopressin. *Acta Physiologica Scandinavica*, **1997**, 160, 363-70		23
33	Cerebral vascular response to hypertonic fluid resuscitation in thermal injury. *Acta Neurochirurgica Supplementum*, **1997**, 70, 265-6	1.7	6
32	Morphologic analysis of the cerebral microcirculation after thermal injury and the response to fluid resuscitation. *Acta Neurochirurgica Supplementum*, **1997**, 70, 267-8	1.7	7
31	Endothelium-medicated control of the coronary circulation. Exercise training-induced vascular adaptations. *Sports Medicine*, **1996**, 22, 228-50	10.6	16
30	Basal and adenosine-mediated protein flux from isolated coronary arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **1996**, 271, H1099-108	5.2	15
29	Seasonal variations of capillary hydraulic conductivity and volume status. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1995**, 268, R468-74	3.2	7
28	Capillary hydraulic conductivity is decreased by nitric oxide synthase inhibition. *American Journal of Physiology - Heart and Circulatory Physiology*, **1995**, 268, H1856-61	5.2	30

27	ANP increases capillary permeability to protein independent of perfusate protein composition. *American Journal of Physiology - Heart and Circulatory Physiology*, **1995**, 268, H1139-48	5.2	20
26	Measurement of hydraulic conductivity in isolated arterioles of rat brain cortex. *American Journal of Physiology - Heart and Circulatory Physiology*, **1993**, 264, H1788-97	5.2	13
25	Bradykinin-induced elevations of hydraulic conductivity display spatial and temporal variations in frog capillaries. *American Journal of Physiology - Heart and Circulatory Physiology*, **1993**, 264, H1575-81	5.2	5
24	Differential action of plasma and albumin on transcapillary exchange of anionic solute. *American Journal of Physiology - Heart and Circulatory Physiology*, **1993**, 264, H1428-37	5.2	22
23	Vasoactive hormones and autocrine activation of capillary exchange barrier function. *Nouvelle Revue Fran□aise D□h□matologie*, **1993**, 19, 309-20; discussion 320-4		11
22	Volume status influences atrial peptide-induced water conductivity changes in leopard frog mesenteric capillaries. *Journal of Physiology*, **1992**, 447, 33-47	3.9	9
21	Capillary hydraulic conductivity is elevated by cGMP-dependent vasodilators. *Circulation Research*, **1992**, 70, 382-91	15.7	77
20	Control of capillary hydraulic conductivity via membrane potential-dependent changes in Ca2+ influx. *American Journal of Physiology - Heart and Circulatory Physiology*, **1992**, 262, H144-8	5.2	2
19	Differential actions of albumin and plasma on capillary solute permeability. *American Journal of Physiology - Heart and Circulatory Physiology*, **1991**, 260, H1645-54	5.2	31
18	Capillary permeability: an albumin component attenuates active changes in Lp. *American Journal of Physiology - Heart and Circulatory Physiology*, **1990**, 259, H1357-64	5.2	5
17	Capillary permeability: atrial peptide action is independent of "protein effect". *American Journal of Physiology - Heart and Circulatory Physiology*, **1990**, 259, H1351-6	5.2	3
16	Differential sensitivity of exchange vessel hydraulic conductivity to atrial natriuretic peptide. *American Journal of Physiology - Heart and Circulatory Physiology*, **1990**, 258, H521-8	5.2	12
15	A direct effect of atrial peptide on arterioles of the terminal microvasculature. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1990**, 258, R1224-9	3.2	9
14	Evidence for cholinergic regulation of microvessel hydraulic conductance during tissue hypoxia. *Circulation Research*, **1990**, 66, 517-24	15.7	7
13	Physiologic regulation of capillary permeability. *Journal of Reconstructive Microsurgery*, **1988**, 4, 341-6	2.5	5
12	Single capillary permeability to proteins having similar size but different charge. *American Journal of Physiology - Heart and Circulatory Physiology*, **1988**, 254, H304-12	5.2	30
11	O2 modulation of single-vessel hydraulic conductance. *American Journal of Physiology - Heart and Circulatory Physiology*, **1988**, 254, H317-23	5.2	7
10	Atrial natriuretic peptide (ANP)-induced increase in capillary albumin and water flux. *Advances in Experimental Medicine and Biology*, **1988**, 242, 23-31	3.6	9

9	Increased capillary hydraulic conductivity induced by atrial natriuretic peptide. *Circulation Research*, **1987**, 60, 304-7	15.7	136
8	Effect of superfusate albumin on single capillary hydraulic conductivity. *American Journal of Physiology - Heart and Circulatory Physiology*, **1987**, 252, H395-401	5.2	11
7	Quantitative fluorescence microscopy on single capillaries: alpha-lactalbumin transport. *American Journal of Physiology - Heart and Circulatory Physiology*, **1987**, 252, H188-97	5.2	85
6	Albumin modulation of capillary permeability: test of an adsorption mechanism. *American Journal of Physiology - Heart and Circulatory Physiology*, **1985**, 248, H264-73	5.2	34
5	Effect of diffusion boundary layers on the initial uptake of O2 by red cells. Theory versus experiment. *Microvascular Research*, **1983**, 26, 89-107	3.7	36
4	Permeability of single capillaries to intermediate-sized colored solutes. *American Journal of Physiology - Heart and Circulatory Physiology*, **1983**, 245, H495-505	5.2	26
3	Determination of fluorescence polarization of membrane probes in intact erythrocytes. Possible scattering artifacts. *Biophysical Journal*, **1982**, 39, 229-32	2.9	18
2	Comparison of the capillary membrane properties determining fluid exchange in single capillaries and whole organs. *International Journal of Microcirculation, Clinical and Experimental*, **1982**, 1, 381-91		6
1	The effect of the red cell membrane and a diffusion boundary layer on the rate of oxygen uptake by human erythrocytes. *Journal of Physiology*, **1981**, 316, 75-83	3.9	61