Harold D Schultz

List of Publications by Year
in descending order

110 papers	4,260 citations	101496 36 h-index	118793 62 g-index
110 all docs	110 docs citations	110 times ranked	3130 citing authors

#	Article	IF	Citations
1	Superoxide Mediates Sympathoexcitation in Heart Failure. Circulation Research, 2004, 95, 937-944.	2.0	223
2	Sympathoexcitation by central ANG II: Roles for AT1 receptor upregulation and NAD(P)H oxidase in RVLM. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2271-H2279.	1.5	183
3	Carotid Chemoreceptor Ablation Improves Survival in Heart Failure. Journal of the American College of Cardiology, 2013, 62, 2422-2430.	1.2	167
4	Neural regulation of sympathetic nerve activity in heart failure. Progress in Cardiovascular Diseases, 1995, 37, 397-414.	1.6	148
5	Carotid body denervation improves autonomic and cardiac function and attenuates disordered breathing in congestive heart failure. Journal of Physiology, 2014, 592, 391-408.	1.3	137
6	Arterial Chemoreceptors and Sympathetic Nerve Activity. Hypertension, 2007, 50, 6-13.	1.3	131
7	Chronic intermittent hypoxia augments chemoreflex control of sympathetic activity: Role of the angiotensin II type 1 receptor. Respiratory Physiology and Neurobiology, 2010, 171, 36-45.	0.7	130
8	Simvastatin Therapy Normalizes Sympathetic Neural Control in Experimental Heart Failure. Circulation, 2005, 112, 1763-1770.	1.6	129
9	The origin of sympathetic outflow in heart failure: the roles of angiotensin II and nitric oxide. Progress in Biophysics and Molecular Biology, 2004, 84, 217-232.	1.4	128
10	The autonomic nervous system as a therapeutic target in heart failure: a scientific position statement from the Translational Research Committee of the Heart Failure Association of the European Society of Cardiology. European Journal of Heart Failure, 2017, 19, 1361-1378.	2.9	115
11	Angiotensin II enhances carotid body chemoreflex control of sympathetic outflow in chronic heart failure rabbits. Cardiovascular Research, 2006, 71, 129-138.	1.8	106
12	Role of blood flow in carotid body chemoreflex function in heart failure. Journal of Physiology, 2011, 589, 245-258.	1.3	103
13	NADPH oxidase-derived superoxide anion mediates angiotensin II-enhanced carotid body chemoreceptor sensitivity in heart failure rabbits. Cardiovascular Research, 2007, 75, 546-554.	1.8	102
14	Neurohumoral Stimulation. Heart Failure Clinics, 2012, 8, 87-99.	1.0	95
15	Carotid body function in heart failure. Respiratory Physiology and Neurobiology, 2007, 157, 171-185.	0.7	94
16	Regulation of central angiotensin type 1 receptors and sympathetic outflow in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H1557-H1566.	1.5	85
17	Differential role of the paraventricular nucleus of the hypothalamus in modulating the sympathoexcitatory component of peripheral and central chemoreflexes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 289, R789-R797.	0.9	80
18	Augmented Input From Cardiac Sympathetic Afferents Inhibits Baroreflex in Rats With Heart Failure. Hypertension, 2005, 45, 1173-1181.	1.3	77

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19	Exercise training normalizes enhanced glutamate-mediated sympathetic activation from the PVN in heart failure. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2008, 294, R1863-R1872.	0.9	75
20	The attenuation of central angiotensin II-dependent pressor response and intra-neuronal signaling by intracarotid injection of nanoformulated copper/zinc superoxide dismutase. Biomaterials, 2010, 31, 5218-5226.	5.7	70
21	Role of the Carotid Body in the Pathophysiology of Heart Failure. Current Hypertension Reports, 2013, 15, 356-362.	1.5	66
22	Gene Transfer of Neuronal Nitric Oxide Synthase to Carotid Body Reverses Enhanced Chemoreceptor Function in Heart Failure Rabbits. Circulation Research, 2005, 97, 260-267.	2.0	64
23	Exercise training improves peripheral chemoreflex function in heart failure rabbits. Journal of Applied Physiology, 2008, 105, 782-790.	1.2	63
24	Enhanced sensitivity of Kv channels to hypoxia in the rabbit carotid body in heart failure: role of angiotensin II. Journal of Physiology, 2006, 575, 215-227.	1.3	61
25	Chemoreflex function in heart failure. , 2000, 5, 45-56.		58
26	Mechanisms of carotid body chemoreflex dysfunction during heart failure. Experimental Physiology, 2015, 100, 124-129.	0.9	58
27	Exercise Training and Sympathetic Regulation in Experimental Heart Failure. Exercise and Sport Sciences Reviews, 2004, 32, 107-111.	1.6	57
28	Mitochondria-produced superoxide mediates angiotensin II-induced inhibition of neuronal potassium current. American Journal of Physiology - Cell Physiology, 2010, 298, C857-C865.	2.1	55
29	Downregulated Kv4.3 expression in the RVLM as a potential mechanism for sympathoexcitation in rats with chronic heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H945-H955.	1.5	48
30	Inhibition of hydrogen sulfide restores normal breathing stability and improves autonomic control during experimental heart failure. Journal of Applied Physiology, 2013, 114, 1141-1150.	1.2	46
31	Contribution of peripheral and central chemoreceptors to sympathoâ€excitation in heart failure. Journal of Physiology, 2017, 595, 43-51.	1.3	46
32	Angiotensin and carotid body chemoreception in heart failure. Current Opinion in Pharmacology, 2011, 11, 144-149.	1.7	45
33	Role of CuZn superoxide dismutase on carotid body function in heart failure rabbits. Cardiovascular Research, 2008, 81, 678-685.	1.8	44
34	Simvastatin Treatment Attenuates Increased Respiratory Variability and Apnea/Hypopnea Index in Rats With Chronic Heart Failure. Hypertension, 2014, 63, 1041-1049.	1.3	44
35	Angiotensin-(1â€"7) increases neuronal potassium current via a nitric oxide-dependent mechanism. American Journal of Physiology - Cell Physiology, 2011, 300, C58-C64.	2.1	43
36	Cardiac sympathetic afferent sensitivity is enhanced in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H812-H817.	1.5	42

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37	Angiotensin Peptides and Nitric Oxide in Cardiovascular Disease. Antioxidants and Redox Signaling, 2013, 19, 1121-1132.	2.5	42
38	Modulation of angiotensin II signaling following exercise training in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H781-H791.	1.5	38
39	Cardiac diastolic and autonomic dysfunction are aggravated by central chemoreflex activation in heart failure with preserved ejection fraction rats. Journal of Physiology, 2017, 595, 2479-2495.	1.3	38
40	Elevated mitochondrial superoxide contributes to enhanced chemoreflex in heart failure rabbits. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 298, R303-R311.	0.9	37
41	Cardiac sympathetic afferent stimulation augments the arterial chemoreceptor reflex in anesthetized rats. Journal of Applied Physiology, 2007, 102, 37-43.	1.2	36
42	Effect of AT1 receptor blockade on intermittent hypoxia-induced endothelial dysfunction. Respiratory Physiology and Neurobiology, 2012, 183, 67-74.	0.7	36
43	Role of the Carotid Body Chemoreflex in the Pathophysiology of Heart Failure: A Perspective from Animal Studies. Advances in Experimental Medicine and Biology, 2015, 860, 167-185.	0.8	35
44	Curcumin improves exercise performance of mice with coronary artery ligation-induced HFrEF: Nrf2 and antioxidant mechanisms in skeletal muscle. Journal of Applied Physiology, 2019, 126, 477-486.	1.2	35
45	Functional, proteomic and bioinformatic analyses of Nrf2â€•and Keap1â€•null skeletal muscle. Journal of Physiology, 2020, 598, 5427-5451.	1.3	34
46	Blunted excitability of aortic baroreceptor neurons in diabetic rats: involvement of hyperpolarization-activated channel. Cardiovascular Research, 2008, 79, 715-721.	1.8	32
47	Central role of carotid body chemoreceptors in disordered breathing and cardiorenal dysfunction in chronic heart failure. Frontiers in Physiology, 2014, 5, 438.	1.3	32
48	Attenuated outward potassium currents in carotid body glomus cells of heart failure rabbit: involvement of nitric oxide. Journal of Physiology, 2004, 555, 219-229.	1.3	31
49	Cardiac Vagal Chemosensory Afferents. Annals of the New York Academy of Sciences, 2001, 940, 59-73.	1.8	31
50	Downregulation of carbon monoxide as well as nitric oxide contributes to peripheral chemoreflex hypersensitivity in heart failure rabbits. Journal of Applied Physiology, 2008, 105, 14-23.	1.2	31
51	Exercise training improves cardiac autonomic control, cardiac function, and arrhythmogenesis in rats with preserved-ejection fraction heart failure. Journal of Applied Physiology, 2017, 123, 567-577.	1.2	29
52	Carotid Body-Mediated Chemoreflex Drive in The Setting of low and High Output Heart Failure. Scientific Reports, 2017, 7, 8035.	1.6	29
53	Chronic central infusion of ANG II potentiates cardiac sympathetic afferent reflex in dogs. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H15-H22.	1.5	27
54	Nitric oxide regulation of autonomic function in heart failure. Current Heart Failure Reports, 2009, 6, 71-80.	1.3	25

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55	Altered nitric oxide mechanism within the paraventricular nucleus contributes to the augmented carotid body chemoreflex in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H149-H157.	1.5	24
56	Expression of Neuronal Nitric Oxide Synthase in Rabbit Carotid Body Glomus Cells Regulates Large-Conductance Ca2+-Activated Potassium Currents. Journal of Neurophysiology, 2010, 103, 3027-3033.	0.9	24
57	KLF2 mediates enhanced chemoreflex sensitivity, disordered breathing and autonomic dysregulation in heart failure. Journal of Physiology, 2018, 596, 3171-3185.	1.3	24
58	Relevance of the Carotid Body Chemoreflex in the Progression of Heart Failure. BioMed Research International, 2015, 2015, 1-7.	0.9	22
59	CARDIAC VAGAL AFFERENT STIMULATION BY FREE RADICALS DURING ISCHAEMIA AND REPERFUSION. Clinical and Experimental Pharmacology and Physiology, 1996, 23, 700-708.	0.9	21
60	Selective carotid body ablation in experimental heart failure: a new therapeutic tool to improve cardiorespiratory control. Experimental Physiology, 2015, 100, 136-142.	0.9	21
61	Oxidative stress impairs cardiac chemoreflexes in diabetic rats. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H2176-H2187.	1.5	20
62	Ablation of brainstem C1 neurons improves cardiac function in volume overload heart failure. Clinical Science, 2019, 133, 393-405.	1.8	20
63	Role of neurotransmitter gases in the control of the carotid body in heart failure. Respiratory Physiology and Neurobiology, 2012, 184, 197-203.	0.7	19
64	Exercise training attenuates chemoreflex-mediated reductions of renal blood flow in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H259-H266.	1.5	18
65	Activation of cardiac afferents by arachidonic acid: relative contributions of metabolic pathways. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 281, H93-H104.	1.5	17
66	Heart Failure and Carotid Body Chemoreception. Advances in Experimental Medicine and Biology, 2012, 758, 387-395.	0.8	17
67	Editorial: Carotid body: a new target for rescuing neural control of cardiorespiratory balance in disease. Frontiers in Physiology, 2015, 6, 181.	1.3	16
68	Volume expansion potentiates cardiac sympathetic afferent reflex in dogs. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H576-H581.	1.5	15
69	Sympatho-excitatory response to pulmonary chemosensitive spinal afferent activation in anesthetized, vagotomized rats. Physiological Reports, 2018, 6, e13742.	0.7	15
70	Episodic stimulation of central chemoreceptor neurons elicits disordered breathing and autonomic dysfunction in volume overload heart failure. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2020, 318, L27-L40.	1.3	15
71	Over-expressed copper/zinc superoxide dismutase localizes to mitochondria in neurons inhibiting the angiotensin II-mediated increase in mitochondrial superoxide. Redox Biology, 2014, 2, 8-14.	3.9	14
72	Rostral ventrolateral medullary catecholaminergic neurones mediate irregular breathing pattern in volume overload heart failure rats. Journal of Physiology, 2019, 597, 5799-5820.	1.3	14

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73	Revisiting the physiological effects of exercise training on autonomic regulation and chemoreflex control in heart failure: does ejection fraction matter?. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 314, H464-H474.	1.5	11
74	Arachidonic acid metabolites regulate the secretion of atrial natriuretic peptide in cultured rat atrial cardiocytes. Canadian Journal of Physiology and Pharmacology, 1991, 69, 1493-1499.	0.7	10
75	Hypothyroidism attenuates SCH 23390-mediated depression of breathing and decreases d1 receptor expression in carotid bodies, PVN and striatum of hamsters. Brain Research, 2011, 1401, 40-51.	1.1	10
76	Sympathoinhibitory effects of atrial natriuretic peptide in rats with heart failure. Journal of Cardiac Failure, 1999, 5, 316-323.	0.7	9
77	The spice of life is at the root of cardiac pain. Journal of Physiology, 2003, 551, 400-400.	1.3	9
78	Hypothyroidism stimulates D2 receptor-mediated breathing in response to acute hypoxia and alters D2 receptors levels in carotid bodies and brain. Respiratory Physiology and Neurobiology, 2012, 180, 69-78.	0.7	8
79	Role of NADPH oxidaseâ€derived superoxide anion on angiotensin IIâ€enhanced sensitivity of potassium channels to hypoxia in carotid body of congestive heart failure rabbits. FASEB Journal, 2007, 21, A1268.	0.2	8
80	Exercise training normalizes renal blood flow responses to acute hypoxia in experimental heart failure: role of the Î±₁-adrenergic receptor. Journal of Applied Physiology, 2016, 120, 334-343.	1.2	6
81	Sympathoexcitation in response to cardiac and pulmonary afferent stimulation of TRPA1 channels is attenuated in rats with chronic heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H862-H872.	1.5	6
82	Increased mechanoreceptor/metaboreceptor stimulation explains the exaggerated exercise pressor reflex seen in heart failure. Journal of Applied Physiology, 2007, 102, 498-501.	1.2	4
83	The Paradox of Carbon Monoxide and the Heart. American Journal of Respiratory and Critical Care Medicine, 2012, 186, 582-583.	2.5	4
84	Reduced Blood Flow in Carotid Arteries is a Trigger Contributing to Peripheral Chemoreflex Hypersensitivity in Chronic Heart Failure Rabbits. FASEB Journal, 2007, 21, A1268.	0.2	4
85	Chronic Heart Failure Abolishes Circadian Rhythms in Resting and Chemoreflex Breathing. Advances in Experimental Medicine and Biology, 2018, 1071, 129-136.	0.8	3
86	Visualizing data in research articles. Journal of Physiology, 2018, 596, 3431-3432.	1.3	3
87	Commentaries on Viewpoint: Precedence and autocracy in breathing control. Journal of Applied Physiology, 2015, 118, 1557-1559.	1.2	2
88	Sympathoexcitation in chronic heart failure: Ang II induced inhibition of voltageâ€gated K + channel, an in vivo and in vitro study. FASEB Journal, 2006, 20, .	0.2	2
89	Chronic intermittent hypoxia alters chemoreflex control of lumbar sympathetic nerve activity and carotid body protein expression. FASEB Journal, 2009, 23, 1008.1.	0.2	2
90	GLP-1 (Glucagon-Like Peptide-1) Plays a Role in Carotid Chemoreceptorâ€“Mediated Sympathoexcitation and Hypertension. Circulation Research, 2022, 130, 708-710.	2.0	2

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91	Reply from Noah J. Marcus, Rodrigo Del Rio and Harold D. Schultz. Journal of Physiology, 2014, 592, 1905-1906.	1.3	1
92	Epigenetic influences on carotid body function: a new snag in the road to treating sleep apnoea. Journal of Physiology, 2017, 595, 629-630.	1.3	1
93	Angiotensinâ€(1â€"7) increases neuronal potassium current via a nitric oxideâ€dependent mechanism. FASEB Journal, 2010, 24, 809.19.	0.2	1
94	Carotid Body Denervation Attenuates Oscillations in Respiratory Rate and Sympathetic Nerve Activity, and Decreases Apnea/Hypopnea Index in Congestive Heart Failure. FASEB Journal, 2013, 27, 1137.7.	0.2	1
95	Proteomic and Functional Analyses of Keap1â€Nrf2 Pathway in Skeletal Muscle. FASEB Journal, 2019, 33, 868.30.	0.2	1
96	Specialized Methods. , 0, , 227-284.		0
97	Be sympathetic to your nervous system. Journal of Applied Physiology, 2012, 113, 1292-1293.	1.2	0
98	The arterial chemoreflex and cardiac stress in heart failure: nothing to be sheepish about. Experimental Physiology, 2014, 99, 1029-1030.	0.9	0
99	Hypothyroidism affects D2 receptor-mediated breathing without altering D2 receptor expression. Respiratory Physiology and Neurobiology, 2014, 193, 29-37.	0.7	0
100	In adult female hamsters hypothyroidism stimulates D1 receptor-mediated breathing without altering D1 receptor expression. Respiratory Physiology and Neurobiology, 2015, 218, 32-39.	0.7	0
101	Advances in cellular and integrative control of oxygen and carbon dioxide homeostasis. Journal of Physiology, 2018, 596, 2933-2934.	1.3	0
102	Downregulation of Carbon Monoxide as well as Nitric Oxide Contributes to Peripheral Chemoreflex Hypersensitivity in Heart Failure Rabbits. FASEB Journal, 2006, 20, .	0.2	0
103	Hyperpolarizationâ€activated cyclic nucleotideâ€gated channels mediate blunted excitability of aortic baroreceptor neurons in diabetic rats. FASEB Journal, 2008, 22, 1171.22.	0.2	0
104	Exercise training normalizes enhanced peripheral chemoreflex function in chronic heart failure rabbits. FASEB Journal, 2008, 22, 952.10.	0.2	0
105	Increased mitochondrial expression of copper/zinc superoxide dismutase (SOD1) following adenoviralâ€mediated gene transfer inhibits angiotensin II (AngII) intraâ€neuronal signaling. FASEB Journal, 2010, 24, 1018.1.	0.2	0
106	Simvastatin Treatment Attenuates Increased Respiratory Variability and Apnea/Hypopnea Index in Rats with Congestive Heart Failure. FASEB Journal, 2012, 26, lb829.	0.2	0
107	Hydrogen sulfide contributes to the enhanced chemoreflex ventilatory response to acute hypoxia in heart failure rats. FASEB Journal, 2012, 26, 894.20.	0.2	0
108	Carotid body ablation improves survival, breathing disorders and autonomic control in heart failure rats. FASEB Journal, 2013, 27, 699.6.	0.2	0

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109	Peripheral Chemoreceptor Ablation Modulates Renal MiRâ€155/KLF4 Expression in Chronic Heart Failure. FASEB Journal, 2018, 32, lb475.	0.2	0
110	Eight weeks of slow deep breathing training alters cardiorespiratory function and improves functional exercise capacity in chronic heart failure patients. FASEB Journal, 2018, 32, 903.16.	0.2	0