

# Kenneth R Olson

## List of Publications by Year in descending order

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118  
papers

5,874  
citations

71102

41  
h-index

79698

73  
g-index

121  
all docs

121  
docs citations

121  
times ranked

4327  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reappraisal of H <sub>2</sub> S/sulfide concentration in vertebrate blood and its potential significance in ischemic preconditioning and vascular signaling. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008, 294, R1930-R1937.	1.8	293
2	Biology and therapeutic potential of hydrogen sulfide and hydrogen sulfide-releasing chimeras. <i>Biochemical Pharmacology</i> , 2013, 85, 689-703.	4.4	270
3	Hydrogen sulfide as an oxygen sensor/transducer in vertebrate hypoxic vasoconstriction and hypoxic vasodilation. <i>Journal of Experimental Biology</i> , 2006, 209, 4011-4023.	1.7	249
4	The Reactive Species Interactome: Evolutionary Emergence, Biological Significance, and Opportunities for Redox Metabolomics and Personalized Medicine. <i>Antioxidants and Redox Signaling</i> , 2017, 27, 684-712.	5.4	244
5	Is hydrogen sulfide a circulating "gasotransmitter" in vertebrate blood?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2009, 1787, 856-863.	1.0	220
6	A Practical Look at the Chemistry and Biology of Hydrogen Sulfide. <i>Antioxidants and Redox Signaling</i> , 2012, 17, 32-44.	5.4	184
7	The Role of Hydrogen Sulfide in Evolution and the Evolution of Hydrogen Sulfide in Metabolism and Signaling. <i>Physiology</i> , 2016, 31, 60-72.	3.1	181
8	Hydrogen sulfide as an endogenous regulator of vascular smooth muscle tone in trout. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2004, 286, R678-R685.	1.8	164
9	The therapeutic potential of hydrogen sulfide: separating hype from hope. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2011, 301, R297-R312.	1.8	154
10	Passive loss of hydrogen sulfide in biological experiments. <i>Analytical Biochemistry</i> , 2012, 421, 203-207.	2.4	146
11	Hydrogen Sulfide and Oxygen Sensing in the Cardiovascular System. <i>Antioxidants and Redox Signaling</i> , 2010, 12, 1219-1234.	5.4	128
12	Hypoxic pulmonary vasodilation: a paradigm shift with a hydrogen sulfide mechanism. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2010, 298, R51-R60.	1.8	125
13	Metabolism of hydrogen sulfide (H <sub>2</sub> S) and Production of Reactive Sulfur Species (RSS) by superoxide dismutase. <i>Redox Biology</i> , 2018, 15, 74-85.	9.0	125
14	Catalase as a sulfide-sulfur oxido-reductase: An ancient (and modern?) regulator of reactive sulfur species (RSS). <i>Redox Biology</i> , 2017, 12, 325-339.	9.0	123
15	Controversies and conundrums in hydrogen sulfide biology. <i>Nitric Oxide - Biology and Chemistry</i> , 2014, 41, 11-26.	2.7	114
16	NOSH"aspirin" (NBS-1120), a novel nitric oxide- and hydrogen sulfide-releasing hybrid is a potent inhibitor of colon cancer cell growth in vitro and in a xenograft mouse model. <i>Biochemical and Biophysical Research Communications</i> , 2012, 419, 523-528.	2.1	113
17	Thiosulfate: a readily accessible source of hydrogen sulfide in oxygen sensing. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2013, 305, R592-R603.	1.8	111
18	Hydrogen sulfide as an oxygen sensor in trout gill chemoreceptors. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008, 295, R669-R680.	1.8	104

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19	H <sub>2</sub> S and polysulfide metabolism: Conventional and unconventional pathways. <i>Biochemical Pharmacology</i> , 2018, 149, 77-90.	4.4	100
20	Hydrogen Sulfide as an Oxygen Sensor. <i>Antioxidants and Redox Signaling</i> , 2015, 22, 377-397.	5.4	97
21	Nervous control of circulation – The role of gasotransmitters, NO, CO, and H <sub>2</sub> S. <i>Acta Histochemica</i> , 2009, 111, 244-256.	1.8	96
22	Evolutionary and comparative aspects of nitric oxide, carbon monoxide and hydrogen sulfide. <i>Respiratory Physiology and Neurobiology</i> , 2012, 184, 117-129.	1.6	92
23	Vascular anatomy of the fish gill. <i>The Journal of Experimental Zoology</i> , 2002, 293, 214-231.	1.4	86
24	Vertebrate phylogeny of hydrogen sulfide vasoactivity. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 288, R243-R252.	1.8	82
25	3 Blood and Extracellular Fluid Volume Regulation: Role of the Renin-Angiotensin System, Kallikrein-Kinin System, and Atrial Natriuretic Peptides. <i>Fish Physiology</i> , 1992, 12, 135-254.	0.8	81
26	Hydrogen sulfide and oxygen sensing: implications in cardiorespiratory control. <i>Journal of Experimental Biology</i> , 2008, 211, 2727-2734.	1.7	78
27	A case of mistaken identity: are reactive oxygen species actually reactive sulfide species?. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2016, 310, R549-R560.	1.8	70
28	Hydrogen sulfide, reactive sulfur species and coping with reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2019, 140, 74-83.	2.9	65
29	Hydrogen sulfide mediates hypoxia-induced relaxation of trout urinary bladder smooth muscle. <i>Journal of Experimental Biology</i> , 2006, 209, 3234-3240.	1.7	61
30	Gill circulation: regulation of perfusion distribution and metabolism of regulatory molecules. <i>The Journal of Experimental Zoology</i> , 2002, 293, 320-335.	1.4	59
31	Vascular Actions of Hydrogen Sulfide in Nonmammalian Vertebrates. <i>Antioxidants and Redox Signaling</i> , 2005, 7, 804-812.	5.4	59
32	Tissue Uptake, Subcellular Distribution, and Metabolism of <sup>14</sup> CH <sub>3</sub> HgCl and CH <sub>3</sub> <sup>203</sup> HgCl by Rainbow Trout, <i>Salmo gairdneri</i> . <i>Journal of the Fisheries Research Board of Canada</i> , 1978, 35, 381-390.	0.9	55
33	Precursors and inhibitors of hydrogen sulfide synthesis affect acute hypoxic pulmonary vasoconstriction in the intact lung. <i>Journal of Applied Physiology</i> , 2012, 112, 411-418.	2.5	55
34	Mitochondrial adaptations to utilize hydrogen sulfide for energy and signaling. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2012, 182, 881-897.	1.5	55
35	Angiotensin signaling and receptor types in teleost fish. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2001, 128, 41-51.	1.8	54
36	Vasculature of the fish gill: Anatomical correlates of physiological functions. <i>Journal of Electron Microscopy Technique</i> , 1991, 19, 389-405.	1.1	51

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37	Hydrogen sulfide as an oxygen sensor. <i>Clinical Chemistry and Laboratory Medicine</i> , 2013, 51, 623-32.	2.3	48
38	Reactive oxygen species or reactive sulfur species: why we should consider the latter. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	47
39	Hormone Metabolism by the Fish Gill. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 1998, 119, 55-65.	1.8	46
40	Oxygen dependency of hydrogen sulfide-mediated vasoconstriction in cyclostome aortas. <i>Journal of Experimental Biology</i> , 2008, 211, 2205-2213.	1.7	44
41	Transvascular and intravascular fluid transport in the rainbow trout: revisiting Starling's forces, the secondary circulation and interstitial compliance. <i>Journal of Experimental Biology</i> , 2003, 206, 457-467.	1.7	43
42	Secondary circulation in fish: Anatomical organization and physiological significance. <i>The Journal of Experimental Zoology</i> , 1996, 275, 172-185.	1.4	42
43	Microvasculature of the avian eye: Studies on the eye of the duckling with microcorrosion casting, scanning electron microscopy, and stereology. <i>American Journal of Anatomy</i> , 1984, 170, 205-221.	1.0	39
44	Hydrogen sulfide is an oxygen sensor in the carotid body. <i>Respiratory Physiology and Neurobiology</i> , 2011, 179, 103-110.	1.6	39
45	Integrating nitric oxide, nitrite and hydrogen sulfide signaling in the physiological adaptations to hypoxia: A comparative approach. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2012, 162, 1-6.	1.8	39
46	Circulatory Anatomy in Bimodally Breathing Fish. <i>American Zoologist</i> , 1994, 34, 280-288.	0.7	32
47	Are Reactive Sulfur Species the New Reactive Oxygen Species?. <i>Antioxidants and Redox Signaling</i> , 2020, 33, 1125-1142.	5.4	32
48	Effects of hypoxia on isolated vessels and perfused gills of rainbow trout. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2001, 130, 171-181.	1.8	31
49	Hydrogen sulfide (H <sub>2</sub> S) and hypoxia inhibit salmonid gastrointestinal motility: evidence for H <sub>2</sub> S as an oxygen sensor. <i>Journal of Experimental Biology</i> , 2011, 214, 4030-4040.	1.7	31
50	Effects of inhibiting antioxidant pathways on cellular hydrogen sulfide and polysulfide metabolism. <i>Free Radical Biology and Medicine</i> , 2019, 135, 1-14.	2.9	31
51	Isolation and cardiovascular activity of a second bradykinin-related peptide ([Arg <sup>0</sup> ,Trp <sup>5</sup> ,Leu <sup>8</sup> ]bradykinin) from trout. <i>Peptides</i> , 1996, 17, 531-537.	2.4	30
52	Pharmacological Characterization of Arginine Vasotocin Vascular Smooth Muscle Receptors in the Trout ( <i>Oncorhynchus mykiss</i> ) in Vitro. <i>General and Comparative Endocrinology</i> , 1999, 114, 36-46.	1.8	29
53	Garlic oil polysulfides: H <sub>2</sub> S- and O <sub>2</sub> -independent prooxidants in buffer and antioxidants in cells. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2016, 310, R1212-R1225.	1.8	29
54	Preparation of fish tissues for electron microscopy. <i>Journal of Electron Microscopy Technique</i> , 1985, 2, 217-228.	1.1	28

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55	Production of [Asn1,Val5]angiotensin II and [Asp1,Val5]angiotensin II in kallikrein-treated trout plasma (T60K). <i>Peptides</i> , 1996, 17, 527-530.	2.4	28
56	Atrial natriuretic peptide clearance receptors in trout: Effects of receptor inhibition in vivo. <i>The Journal of Experimental Zoology</i> , 1992, 262, 343-346.	1.4	27
57	Effects of hypoxia on vertebrate blood vessels. <i>Journal of Experimental Zoology</i> , 2008, 309A, 55-63.	1.2	27
58	Cardiovascular and renal effects of eel and rat atrial natriuretic peptide in rainbow trout, <i>Salmo gairdneri</i> . <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 1992, 162, 408-15.	1.5	26
59	Green tea polyphenolic antioxidants oxidize hydrogen sulfide to thiosulfate and polysulfides: A possible new mechanism underpinning their biological action. <i>Redox Biology</i> , 2020, 37, 101731.	9.0	25
60	Effects of endothelin-1 and homologous trout endothelin on cardiovascular function in rainbow trout. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2000, 278, R460-R468.	1.8	24
61	Hypoxic vasoconstriction of cyclostome systemic vessels: the antecedent of hypoxic pulmonary vasoconstriction?. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 280, R198-R206.	1.8	24
62	Hydrogen sulfide: both feet on the gas and none on the brake?. <i>Frontiers in Physiology</i> , 2013, 4, 2.	2.8	24
63	Purification of a vasoactive peptide related to lysyl-bradykinin from trout plasma. <i>FEBS Letters</i> , 1993, 334, 75-78.	2.8	23
64	Comparative physiology of the piscine natriuretic peptide system. <i>General and Comparative Endocrinology</i> , 2008, 157, 21-26.	1.8	23
65	Hydrogen sulfide mediates hypoxic vasoconstriction through a production of mitochondrial ROS in trout gills. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2012, 303, R487-R494.	1.8	23
66	A theoretical examination of hydrogen sulfide metabolism and its potential in autocrine/paracrine oxygen sensing. <i>Respiratory Physiology and Neurobiology</i> , 2013, 186, 173-179.	1.6	23
67	Hydrogen Sulfide: Biogenesis, Physiology, and Pathology. <i>Oxidative Medicine and Cellular Longevity</i> , 2016, 2016, 1-2.	4.0	23
68	Catecholaminergic regulation of venous function in the rainbow trout. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1998, 274, R1195-R1202.	1.8	21
69	Effects of freshwater and saltwater adaptation and dietary salt on fluid compartments, blood pressure, and venous capacitance in trout. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008, 294, R1061-R1067.	1.8	20
70	Functional morphology of the gills of the shortfin mako, <i>Isurus oxyrinchus</i> , a lamnid shark. <i>Journal of Morphology</i> , 2010, 271, 937-948.	1.2	20
71	Hydrogen sulfide decreases $\beta^2$ -adrenergic agonist-stimulated lung liquid clearance by inhibiting ENaC-mediated transepithelial sodium absorption. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2015, 308, R636-R649.	1.8	19
72	A Case for Hydrogen Sulfide Metabolism as an Oxygen Sensing Mechanism. <i>Antioxidants</i> , 2021, 10, 1650.	5.1	19

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73	Localization of angiotensin-converting enzyme in the trout gill. <i>The Journal of Experimental Zoology</i> , 1989, 250, 109-115.	1.4	18
74	Responses of the trout cardiac natriuretic peptide system to manipulation of salt and water balance. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2009, 296, R1170-R1179.	1.8	17
75	Manganese Porphyrin-Based SOD Mimetics Produce Polysulfides from Hydrogen Sulfide. <i>Antioxidants</i> , 2019, 8, 639.	5.1	17
76	Secondary circulation of the vascular heat exchangers in skipjack tuna, <i>Katsuwonus pelamis</i> . <i>The Journal of Experimental Zoology</i> , 1994, 269, 566-570.	1.4	16
77	Similarity of Vasorelaxant Effects of Natriuretic Peptides in Isolated Blood Vessels of Salmonids. <i>Physiological and Biochemical Zoology</i> , 2000, 73, 494-500.	1.5	16
78	Hydrogen Sulfide: A Potential Novel Therapy for the Treatment of Ischemia. <i>Shock</i> , 2017, 48, 511-524.	2.1	16
79	Fluorescence quenching by metal centered porphyrins and porypyrin enzymes. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2017, 313, R340-R346.	1.8	16
80	Effect of atrial natriuretic peptide on fluid volume and glomerular filtration in the rainbow trout. <i>The Journal of Experimental Zoology</i> , 1997, 278, 215-220.	1.4	15
81	Scanning electron microscopy of the heart of the climbing perch. <i>Journal of Fish Biology</i> , 2001, 59, 1170-1180.	1.6	15
82	Dynamic synchronization analysis of venous pressure-driven cardiac output in rainbow trout. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 285, R889-R896.	1.8	15
83	Inhibiting hydrogen sulfide production in umbilical stem cells reduces their protective effects during experimental necrotizing enterocolitis. <i>Journal of Pediatric Surgery</i> , 2019, 54, 1168-1173.	1.6	15
84	Oxidation of Hydrogen Sulfide by Quinones: How Polyphenols Initiate Their Cytoprotective Effects. <i>International Journal of Molecular Sciences</i> , 2021, 22, 961.	4.1	15
85	Purification, structural characterization, and myotropic activity of endothelin from trout, <i>Oncorhynchus mykiss</i> . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1999, 277, R1605-R1611.	1.8	14
86	Effects of carbon monoxide on trout and lamprey vessels. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2009, 296, R141-R149.	1.8	14
87	Extended hypoxia-mediated H <sub>2</sub> S production provides for long-term oxygen sensing. <i>Acta Physiologica</i> , 2020, 228, e13368.	3.8	14
88	Antioxidant berries, anthocyanins, resveratrol and rosmarinic acid oxidize hydrogen sulfide to polysulfides and thiosulfate: A novel mechanism underlying their biological actions. <i>Free Radical Biology and Medicine</i> , 2021, 165, 67-78.	2.9	14
89	Arginine Vasotocin Relaxation of Gar ( <i>Lepisosteus</i> spp.) Hepatic Vein in Vitro. <i>General and Comparative Endocrinology</i> , 1996, 104, 52-60.	1.8	13
90	Hydrogen sulfide contributes to hypoxic inhibition of airway transepithelial sodium absorption. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2016, 311, R607-R617.	1.8	13

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91	Localization of 3H-norepinephrine binding sites in the trout gill. <i>The Journal of Experimental Zoology</i> , 1985, 235, 309-313.	1.4	12
92	Significance of circulating catecholamines in regulation of trout splanchnic vascular resistance. <i>The Journal of Experimental Zoology</i> , 1993, 267, 92-96.	1.4	12
93	Vascular anatomy of the gills in a high energy demand teleost, the skipjack tuna ( <i>Katsuwonus pelamis</i> ). <i>The Journal of Experimental Zoology</i> , 2003, 297A, 17-31.	1.4	12
94	Are the beneficial effects of "antioxidant" lipoic acid mediated through metabolism of reactive sulfur species?. <i>Free Radical Biology and Medicine</i> , 2020, 146, 139-149.	2.9	12
95	The biological legacy of sulfur: A roadmap to the future. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2021, 252, 110824.	1.8	12
96	Intracellular and extracellular calcium utilization during hypoxic vasoconstriction of cyclostome aortas. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 281, R1506-R1513.	1.8	11
97	Effect of pH on trout blood vessels and gill vascular resistance. <i>Journal of Experimental Biology</i> , 2006, 209, 2586-2594.	1.7	10
98	Coenzyme Q10 and related quinones oxidize H <sub>2</sub> S to polysulfides and thiosulfate. <i>Free Radical Biology and Medicine</i> , 2022, 182, 119-131.	2.9	9
99	The response of non-traditional natriuretic peptide production sites to salt and water manipulations in the rainbow trout. <i>Journal of Experimental Biology</i> , 2009, 212, 2991-2997.	1.7	8
100	Endogenous vascular synthesis of B-type and C-type natriuretic peptides in the rainbow trout. <i>Journal of Experimental Biology</i> , 2011, 214, 2709-2717.	1.7	8
101	Effects of Manganese Porphyrins on Cellular Sulfur Metabolism. <i>Molecules</i> , 2020, 25, 980.	3.8	8
102	Spontaneous contractions in elasmobranch vessels in vitro. , 2000, 286, 606-614.		7
103	The effects of salt-induced hypertension on $\alpha$ 1-adrenoreceptor expression and cardiovascular physiology in the rainbow trout ( <i>Oncorhynchus mykiss</i> ). <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007, 293, R1384-R1392.	1.8	6
104	H <sub>2</sub> S and O <sub>2</sub> sensing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, E141; author reply E142.	7.1	6
105	Human Mesenchymal Stem Cell Hydrogen Sulfide Production Critically Impacts the Release of Other Paracrine Mediators After Injury. <i>Journal of Surgical Research</i> , 2020, 254, 75-82.	1.6	6
106	Physiological inactivation of vasoactive hormones in rainbow trout. , 1997, 279, 254-264.		5
107	Testing the Rebound Peer Review Concept. <i>Antioxidants and Redox Signaling</i> , 2013, 19, 1-4.	5.4	5
108	The spleen as an unlikely source of red blood cells during activity in fishes. <i>Journal of Experimental Biology</i> , 2020, 223, .	1.7	5

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109	Hydrogen sulfide oxidation and the arterial chemoreflex: Effect of methemoglobin by Haouzi et al. [Respir. Physiol. Neurobiol. (2011)]. Respiratory Physiology and Neurobiology, 2011, 179, 121.	1.6	4
110	Endogenous H <sub>2</sub> S in hemorrhagic shock: innocent bystander or central player?. Critical Care, 2012, 16, 183.	5.8	3
111	Comment on "Evidence that the ProPerDP method is inadequate for protein persulfidation detection due to lack of specificity". Science Advances, 2021, 7, .	10.3	3
112	Different sensitivities of arteries and veins to vasoactive drugs in a hagfish, <i>Eptatretus cirrhatus</i> . Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2008, 148, 107-111.	2.6	2
113	Hydrogen Sulfide as an Oxygen Sensor. , 2013, , 37-62.		2
114	The Effects of Antioxidant Nutraceuticals on Cellular Sulfur Metabolism and Signaling. Antioxidants and Redox Signaling, 2023, 38, 68-94.	5.4	2
115	Rhythmic contractility in the hepatic portal "corkscrew" vein of the rat snake. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 152, 389-397.	1.8	1
116	Fish Endothelium. , 2007, , 59-65.		0
117	Effect of pH on trout vascular smooth muscle. FASEB Journal, 2006, 20, .	0.5	0
118	Cross-Sensitivities of Amperometric Sensors Designed for Specific Gaseous Signaling Molecules. FASEB Journal, 2015, 29, 979.11.	0.5	0