Edzard Schwedhelm

List of Publications by Citations

104 papers	2,976 citations	30 h-index	52 g-index
108 ext. papers	3,571 ext. citations	5.8 avg, IF	4.91 L-index

#	Paper	IF	Citations
104	Pharmacokinetic and pharmacodynamic properties of oral L-citrulline and L-arginine: impact on nitric oxide metabolism. *British Journal of Clinical Pharmacology*, **2008**, 65, 51-9	3.8	313
103	Plasma asymmetric dimethylarginine and incidence of cardiovascular disease and death in the community. *Circulation*, **2009**, 119, 1592-600	16.7	270
102	The role of asymmetric and symmetric dimethylarginines in renal disease. *Nature Reviews Nephrology*, **2011**, 7, 275-85	14.9	167
101	High-throughput liquid chromatographic-tandem mass spectrometric determination of arginine and dimethylated arginine derivatives in human and mouse plasma. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2007**, 851, 211-9	3.2	131
100	Liquid chromatography-tandem mass spectrometry method for the analysis of asymmetric dimethylarginine in human plasma. *Clinical Chemistry*, **2005**, 51, 1268-71	5.5	109
99	Homoarginine levels are regulated by L-arginine:glycine amidinotransferase and affect stroke outcome: results from human and murine studies. *Circulation*, **2013**, 128, 1451-61	16.7	102
98	Symmetric dimethylarginine predicts all-cause mortality following ischemic stroke. *Atherosclerosis*, **2010**, 208, 518-23	3.1	102
97	Pathophysiology of isoprostanes in the cardiovascular system: implications of isoprostane-mediated thromboxane A2 receptor activation. *British Journal of Pharmacology*, **2014**, 171, 3115-31	8.6	95
96	Decreased serum concentrations of sphingosine-1-phosphate in sepsis. *Critical Care*, **2015**, 19, 372	10.8	81
95	Isoprostanes inhibit vascular endothelial growth factor-induced endothelial cell migration, tube formation, and cardiac vessel sprouting in vitro, as well as angiogenesis in vivo via activation of the thromboxane A(2) receptor: a potential link between oxidative stress and impaired angiogenesis. *Circulation Research*, **2008**, 103, 1037-46	15.7	79
94	Targeting sphingosine-1-phosphate lyase as an anabolic therapy for bone loss. *Nature Medicine*, **2018**, 24, 667-678	50.5	62
93	Symmetrical dimethylarginine predicts mortality in the general population: observations from the Dallas heart study. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2013**, 33, 2682-8	9.4	59
92	Human leucocyte antigen (HLA-DR) gene expression is reduced in sepsis and correlates with impaired TNF□esponse: A diagnostic tool for immunosuppression?. *PLoS ONE*, **2017**, 12, e0182427	3.7	58
91	Homoarginine and cardiovascular outcome in the population-based Dallas Heart Study. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2014**, 34, 2501-7	9.4	57
90	L-homoarginine and cardiovascular disease. *Current Opinion in Clinical Nutrition and Metabolic Care*, **2015**, 18, 83-8	3.8	56
89	Asymmetric and symmetric dimethylarginine and risk of secondary cardiovascular disease events and mortality in patients with stable coronary heart disease: the KAROLA follow-up study. *Clinical Research in Cardiology*, **2013**, 102, 193-202	6.1	56
88	Stable isotope dilution assay for liquid chromatography-tandem mass spectrometric determination of L-homoarginine in human plasma. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2011**, 879, 2294-8	3.2	51

87	Homoarginine--an independent marker of mortality in heart failure. *International Journal of Cardiology*, **2013**, 168, 4907-9	3.2	48
86	Pathogenic cycle between the endogenous nitric oxide synthase inhibitor asymmetrical dimethylarginine and the leukocyte-derived hemoprotein myeloperoxidase. *Circulation*, **2011**, 124, 2735-45	16.7	47
85	Symmetric dimethylarginine, high-density lipoproteins and cardiovascular disease. *European Heart Journal*, **2017**, 38, 1597-1607	9.5	45
84	Asymmetric dimethylarginine reference intervals determined with liquid chromatography-tandem mass spectrometry: results from the Framingham offspring cohort. *Clinical Chemistry*, **2009**, 55, 1539-45	5.5	44
83	Symmetric dimethylarginine is a marker of detrimental outcome in the acute phase after ischaemic stroke: role of renal function. *Clinical Science*, **2012**, 122, 105-11	6.5	42
82	Association of the endogenous nitric oxide synthase inhibitor ADMA with carotid artery intimal media thickness in the Framingham Heart Study offspring cohort. *Stroke*, **2009**, 40, 2715-9	6.7	40
81	Independent association of urinary F2-isoprostanes with survival in pulmonary arterial hypertension. *Chest*, **2012**, 142, 869-876	5.3	40
80	Genome-wide association study of L-arginine and dimethylarginines reveals novel metabolic pathway for symmetric dimethylarginine. *Circulation: Cardiovascular Genetics*, **2014**, 7, 864-72		38
79	Markers of nitric oxide are associated with sepsis severity: an observational study. *Critical Care*, **2017**, 21, 189	10.8	35
78	Oxidative stress in drug-naïve first episode patients with schizophrenia and major depression: effects of disease acuity and potential confounders. *European Archives of Psychiatry and Clinical Neuroscience*, **2018**, 268, 129-143	5.1	32
77	Oral supplementation with L-homoarginine in young volunteers. *British Journal of Clinical Pharmacology*, **2016**, 82, 1477-1485	3.8	32
76	Serum-Sphingosine-1-Phosphate Concentrations Are Inversely Associated with Atherosclerotic Diseases in Humans. *PLoS ONE*, **2016**, 11, e0168302	3.7	31
75	Dietary Supplementation with Homoarginine Preserves Cardiac Function in a Murine Model of Post-Myocardial Infarction Heart Failure. *Circulation*, **2017**, 135, 400-402	16.7	30
74	Integrated genomics and metabolomics in nephrology. *Nephrology Dialysis Transplantation*, **2014**, 29, 1467-74	4.3	30
73	Ranolazine antagonizes catecholamine-induced dysfunction in isolated cardiomyocytes, but lacks long-term therapeutic effects in vivo in a mouse model of hypertrophic cardiomyopathy. *Cardiovascular Research*, **2016**, 109, 90-102	9.9	28
72	Dimethylarginines: their vascular and metabolic roles in Africans and Caucasians. *European Journal of Endocrinology*, **2010**, 162, 525-33	6.5	27
71	Incidence of all-cause and cardiovascular mortality predicted by symmetric dimethylarginine in the population-based study of health in pomerania. *PLoS ONE*, **2014**, 9, e96875	3.7	25
70	Plasma symmetric dimethylarginine reference limits from the Framingham offspring cohort. *Clinical Chemistry and Laboratory Medicine*, **2011**, 49, 1907-10	5.9	23

69	Loss of sphingosine 1-phosphate (S1P) in septic shock is predominantly caused by decreased levels of high-density lipoproteins (HDL). *Journal of Intensive Care*, **2019**, 7, 23	7	22
68	Cardiomyocyte dimethylarginine dimethylaminohydrolase-1 (DDAH1) plays an important role in attenuating ventricular hypertrophy and dysfunction. *Basic Research in Cardiology*, **2017**, 112, 55	11.8	21
67	Plasma Nitrate and Incidence of Cardiovascular Disease and All-Cause Mortality in the Community: The Framingham Offspring Study. *Journal of the American Heart Association*, **2017**, 6,	6	19
66	A Label-Free Continuous Fluorescence-Based Assay for Monitoring Ornithine Decarboxylase Activity with a Synthetic Putrescine Receptor. *SLAS Discovery*, **2017**, 22, 906-914	3.4	18
65	Reference intervals for serum sphingosine-1-phosphate in the population-based Study of Health in Pomerania. *Clinica Chimica Acta*, **2017**, 468, 25-31	6.2	17
64	Homoarginine supplementation improves blood glucose in diet-induced obese mice. *Amino Acids*, **2015**, 47, 1921-9	3.5	16
63	Low Homoarginine Levels in the Prognosis of Patients With Acute Chest Pain. *Journal of the American Heart Association*, **2016**, 5, e002565	6	16
62	Symmetrical (SDMA) and asymmetrical dimethylarginine (ADMA) in sepsis: high plasma levels as combined risk markers for sepsis survival. *Critical Care*, **2018**, 22, 216	10.8	16
61	FoxO1 regulates asymmetric dimethylarginine via downregulation of dimethylaminohydrolase 1 in human endothelial cells and subjects with atherosclerosis. *Atherosclerosis*, **2015**, 242, 230-5	3.1	15
60	Prasugrel as opposed to clopidogrel improves endothelial nitric oxide bioavailability and reduces platelet-leukocyte interaction in patients with unstable angina pectoris: A randomized controlled trial. *International Journal of Cardiology*, **2017**, 248, 7-13	3.2	15
59	ADMA, subclinical changes and atrial fibrillation in the general population. *International Journal of Cardiology*, **2016**, 203, 640-6	3.2	14
58	Asymmetric Dimethylarginine at Sea Level Is a Predictive Marker of Hypoxic Pulmonary Arterial Hypertension at High Altitude. *Frontiers in Physiology*, **2019**, 10, 651	4.6	14
57	Asymmetric and Symmetric Dimethylarginines are Markers of Delayed Cerebral Ischemia and Neurological Outcome in Patients with Subarachnoid Hemorrhage. *Neurocritical Care*, **2018**, 29, 84-93	3.3	14
56	Reference intervals of plasma homoarginine from the German Gutenberg Health Study. *Clinical Chemistry and Laboratory Medicine*, **2016**, 54, 1231-7	5.9	14
55	Arginine Derivatives in Cerebrovascular Diseases: Mechanisms and Clinical Implications. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	13
54	Nitric oxide synthesis capacity, ambulatory blood pressure and end organ damage in a black and white population: the SABPA study. *Amino Acids*, **2016**, 48, 801-810	3.5	13
53	The relationship of nitric oxide synthesis capacity, oxidative stress, and albumin-to-creatinine ratio in black and white men: the SABPA study. *Age*, **2016**, 38, 9		13
52	ADMA and arginine derivatives in relation to non-invasive vascular function in the general population. *Atherosclerosis*, **2016**, 244, 149-56	3.1	13

51	Dimethylarginine dimethylaminohydrolase-1 transgenic mice are not protected from ischemic stroke. *PLoS ONE*, **2009**, 4, e7337	3.7	13
50	Subclinical Cardiac Microdamage, Motor Severity, and Cognition in Parkinson's Disease. *Movement Disorders*, **2020**, 35, 1863-1868	7	12
49	L-Arginine and SDMA Serum Concentrations Are Associated with Subclinical Atherosclerosis in the Study of Health in Pomerania (SHIP). *PLoS ONE*, **2015**, 10, e0131293	3.7	11
48	Circulating Metabolites Differentiate Acute Ischemic Stroke from Stroke Mimics. *Annals of Neurology*, **2020**, 88, 736-746	9.4	10
47	Determinants of Serum- and Plasma Sphingosine-1-Phosphate Concentrations in a Healthy Study Group. *TH Open*, **2020**, 4, e12-e19	2.7	9
46	Personalised haemodynamic management targeting baseline cardiac index in high-risk patients undergoing major abdominal surgery: a randomised single-centre clinical trial. *British Journal of Anaesthesia*, **2020**, 125, 122-132	5.4	9
45	Evidence by GC-MS that lysine is an arginase-catalyzed metabolite of homoarginine in vitro and in vivo in humans. *Analytical Biochemistry*, **2019**, 577, 59-66	3.1	8
44	Cognitive performance of 20 healthy humans supplemented with L-homoarginine for 4 weeks. *Journal of Clinical Neuroscience*, **2018**, 50, 237-241	2.2	8
43	Differential effects of nebivolol vs. metoprolol on microvascular function in hypertensive humans. *American Journal of Physiology - Heart and Circulatory Physiology*, **2016**, 311, H118-24	5.2	8
42	Guanidino compound ratios are associated with stroke etiology, internal carotid artery stenosis and CHADS-VASc score in three cross-sectional studies. *Journal of the Neurological Sciences*, **2019**, 397, 156-161	3.2	8
41	Data on subgroup specific baseline characteristics and serum sphingosine-1-phosphate concentrations in the Study of Health in Pomerania. *Data in Brief*, **2017**, 12, 46-50	1.2	7
40	Muscle phenotype of AGAT- and GAMT-deficient mice after simvastatin exposure. *Amino Acids*, **2020**, 52, 73-85	3.5	7
39	Homoarginine predicts mortality in treatment-naive patients with pulmonary arterial hypertension. *International Journal of Cardiology*, **2016**, 217, 12-5	3.2	7
38	Myeloid-Derived Suppressor Cells Mediate Immunosuppression After Cardiopulmonary Bypass. *Critical Care Medicine*, **2019**, 47, e700-e709	1.4	7
37	Relationship between exercise intervention and NO pathway in patients with heart failure with preserved ejection fraction. *Biomarkers*, **2018**, 23, 540-550	2.6	6
36	Elevated serum SDMA and ADMA at hospital admission predict in-hospital mortality of COVID-19 patients. *Scientific Reports*, **2021**, 11, 9895	4.9	6
35	Asymmetric dimethylarginine, related arginine derivatives, and incident atrial fibrillation. *American Heart Journal*, **2016**, 176, 100-6	4.9	6
34	Measurement of homoarginine in human and mouse plasma by LC-MS/MS and ELISA: a comparison and a biological application. *Amino Acids*, **2015**, 47, 2015-22	3.5	5

33	Low-Circulating Homoarginine is Associated with Dilatation and Decreased Function of the Left Ventricle in the General Population. *Biomolecules*, **2018**, 8,	5.9	5
32	Association of lipid levels with motor and cognitive function and decline in advanced Parkinson's disease in the Mark-PD study. *Parkinsonism and Related Disorders*, **2021**, 85, 5-10	3.6	5
31	Analyses of sphingosine-1-phosphate in the context of transfusion: how much is in stored blood products and in patient blood?. *Transfusion*, **2019**, 59, 3071-3076	2.9	4
30	Association of proton pump inhibitor use with endothelial function and metabolites of the nitric oxide pathway: A cross-sectional study. *Pharmacotherapy*, **2021**, 41, 198-204	5.8	4
29	Asymmetric dimethylarginine and L-homoarginine prospectively relate to carotid wall thickness in a South African cohort. *Amino Acids*, **2020**, 52, 965-973	3.5	3
28	L-homoarginine is associated with decreased cardiovascular- and all-cause mortality. *European Journal of Clinical Investigation*, **2021**, 51, e13472	4.6	3
27	Association of Lower Plasma Homoarginine Concentrations with Greater Risk of All-Cause Mortality in the Community: The Framingham Offspring Study. *Journal of Clinical Medicine*, **2020**, 9,	5.1	3
26	Central systolic blood pressure relates inversely to nitric oxide synthesis in young black adults: the African-PREDICT study. *Journal of Human Hypertension*, **2021**, 35, 985-993	2.6	3
25	Sphingosine-1-Phosphate, Motor Severity, and Progression in Parkinson's Disease (MARK-PD). *Movement Disorders*, **2021**, 36, 2178-2182	7	3
24	Sphingosine-1-Phosphate Attenuates Lipopolysaccharide-Induced Pericyte Loss via Activation of Rho-A and MRTF-A. *Thrombosis and Haemostasis*, **2021**, 121, 341-350	7	3
23	Intrathecal and systemic alterations of L-arginine metabolism in patients after intracerebral hemorrhage. *Journal of Cerebral Blood Flow and Metabolism*, **2021**, 41, 1964-1977	7.3	3
22	Trimethyllysine, vascular risk factors and outcome in acute ischemic stroke (MARK-STROKE). *Amino Acids*, **2021**, 53, 555-561	3.5	3
21	Cross-Sectional Associations between Homoarginine, Intermediate Phenotypes, and Atrial Fibrillation in the Community-The Gutenberg Health Study. *Biomolecules*, **2018**, 8,	5.9	3
20	Serum neurofilament is associated with motor function, cognitive decline and subclinical cardiac damage in advanced Parkinson's disease (MARK-PD). *Parkinsonism and Related Disorders*, **2021**, 90, 44-48	3.6	3
19	Homoarginine- and Creatine-Dependent Gene Regulation in Murine Brains with l-Arginine:Glycine Amidinotransferase Deficiency. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	2
18	Association of Asymmetric Dimethylarginine and Diastolic Dysfunction in Patients with Hypertrophic Cardiomyopathy. *Biomolecules*, **2019**, 9,	5.9	2
17	A Thromboxane A Receptor-Driven COX-2-Dependent Feedback Loop That Affects Endothelial Homeostasis and Angiogenesis.. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2022**, ATVBAHA121317380	9.4	2
16	Effect of ranolazine on plasma arginine derivatives and urinary isoprostane 8-iso-PGF in patients with myocardial infarction in the randomized RIMINI-Trial. *Scientific Reports*, **2019**, 9, 5708	4.9	1

15	Arginine metabolism and nitric oxide turnover in the ZSF1 animal model for heart failure with preserved ejection fraction. *Scientific Reports*, **2021**, 11, 20684	4.9	1
14	Increased Sphingosine-1-Phosphate Serum Concentrations in Subjects with Periodontitis: A Matter of Inflammation. *Journal of Inflammation Research*, **2021**, 14, 2883-2896	4.8	1
13	Low homoarginine/SDMA ratio is associated with poor short- and long-term outcome after stroke in two prospective studies. *Neurological Sciences*, **2020**, 41, 149-153	3.5	1
12	Associations of circulating dimethylarginines with the metabolic syndrome in the Framingham Offspring study. *PLoS ONE*, **2021**, 16, e0254577	3.7	1
11	Reply to: "Parkin Deficiency Appears Not to Be Associated with Cardiac Damage in Parkinson's Disease". *Movement Disorders*, **2021**, 36, 273-274	7	1
10	Dynamics of Vascular Protective and Immune Supportive Sphingosine-1-Phosphate During Cardiac Surgery. *Frontiers in Immunology*, **2021**, 12, 761475	8.4	0
9	Creatine, guanidinoacetate and homoarginine in statin-induced myopathy. *Amino Acids*, **2020**, 52, 1067-1069	3.5	0
8	Blood pressure and nitric oxide synthesis capacity in physically active and inactive groups: the SABPA study. *Journal of Human Hypertension*, **2021**, 35, 325-333	2.6	0
7	Arginine:Glycine Amidinotransferase Is Essential for Creatine Supply in Mice During Chronic Hypoxia. *Frontiers in Physiology*, **2021**, 12, 703069	4.6	0
6	Serum Sphingosine-1-Phosphate Levels Are Associated With Severity and Outcome in Patients With Cerebral Ischemia. *Stroke*, **2021**, 52, 3901-3907	6.7	0
5	Thromboxane A receptor activation via G-RhoA/C-ROCK-LIMK2-dependent signal transduction inhibits angiogenic sprouting of human endothelial cells.. *Biochemical Pharmacology*, **2022**, 115069	6	0
4	Reply to: "N-Terminal Pro-B-Type Natriuretic Peptide Levels in Parkinson's Disease". *Movement Disorders*, **2020**, 35, 1888	7	
3	Reference ranges for sphingosine-1-phosphate in neonates. *Journal of Perinatal Medicine*, **2021**, 49, 932-935	2.7	
2	Effect of intraoperative personalized goal-directed hemodynamic management on acute myocardial injury in high-risk patients having major abdominal surgery: a post-hoc secondary analysis of a randomized clinical trial.. *Journal of Clinical Monitoring and Computing*, **2022**, 1	2	
1	Sphingosine-1-phosphate and vascular disease in the general population.. *Atherosclerosis*, **2022**, 350, 73-81	3.1	