

Edzard Schwedhelm

List of Publications by Year in descending order

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107
papers

3,976
citations

126708

33
h-index

128067

60
g-index

108
all docs

108
docs citations

108
times ranked

5095
citing authors

#	ARTICLE	IF	CITATIONS
1	Pharmacokinetic and pharmacodynamic properties of oral L-citrulline and L-arginine: impact on nitric oxide metabolism. <i>British Journal of Clinical Pharmacology</i> , 2008, 65, 51-59.	1.1	403
2	Plasma Asymmetric Dimethylarginine and Incidence of Cardiovascular Disease and Death in the Community. <i>Circulation</i> , 2009, 119, 1592-1600.	1.6	310
3	The role of asymmetric and symmetric dimethylarginines in renal disease. <i>Nature Reviews Nephrology</i> , 2011, 7, 275-285.	4.1	200
4	High-throughput liquid chromatographic-tandem mass spectrometric determination of arginine and dimethylated arginine derivatives in human and mouse plasma. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2007, 851, 211-219.	1.2	149
5	Homoarginine Levels Are Regulated by <i>h</i> -Arginine:Glycine Amidinotransferase and Affect Stroke Outcome. <i>Circulation</i> , 2013, 128, 1451-1461.	1.6	126
6	Pathophysiology of isoprostanes in the cardiovascular system: implications of isoprostane-mediated thromboxane <i>TP</i> ₂ receptor activation. <i>British Journal of Pharmacology</i> , 2014, 171, 3115-3131.	2.7	119
7	Liquid Chromatography-Tandem Mass Spectrometry Method for the Analysis of Asymmetric Dimethylarginine in Human Plasma. <i>Clinical Chemistry</i> , 2005, 51, 1268-1271.	1.5	115
8	Symmetric dimethylarginine predicts all-cause mortality following ischemic stroke. <i>Atherosclerosis</i> , 2010, 208, 518-523.	0.4	110
9	Decreased serum concentrations of sphingosine-1-phosphate in sepsis. <i>Critical Care</i> , 2015, 19, 372.	2.5	108
10	Human leucocyte antigen (HLA-DR) gene expression is reduced in sepsis and correlates with impaired TNF response: A diagnostic tool for immunosuppression?. <i>PLoS ONE</i> , 2017, 12, e0182427.	1.1	99
11	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. <i>Circulation Research</i> , 2008, 103, 1037-1046.	2.0	94
12	Targeting sphingosine-1-phosphate lyase as an anabolic therapy for bone loss. <i>Nature Medicine</i> , 2018, 24, 667-678.	15.2	93
13	Symmetric dimethylarginine, high-density lipoproteins and cardiovascular disease. <i>European Heart Journal</i> , 2017, 38, 1597-1607.	1.0	77
14	Homoarginine and Cardiovascular Outcome in the Population-Based Dallas Heart Study. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2014, 34, 2501-2507.	1.1	73
15	L-Homoarginine and cardiovascular disease. <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> , 2015, 18, 83-88.	1.3	71
16	Markers of nitric oxide are associated with sepsis severity: an observational study. <i>Critical Care</i> , 2017, 21, 189.	2.5	66
17	Symmetrical Dimethylarginine Predicts Mortality in the General Population. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2013, 33, 2682-2688.	1.1	62
18	Pathogenic Cycle Between the Endogenous Nitric Oxide Synthase Inhibitor Asymmetrical Dimethylarginine and the Leukocyte-Derived Hemoprotein Myeloperoxidase. <i>Circulation</i> , 2011, 124, 2735-2745.	1.6	58

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19	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. <i>Clinical Research in Cardiology</i> , 2013, 102, 193-202.	1.5	58
20	Stable isotope dilution assay for liquid chromatography-tandem mass spectrometric determination of l-homoarginine in human plasma. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2011, 879, 2294-2298.	1.2	57
21	Homoarginine – An independent marker of mortality in heart failure. <i>International Journal of Cardiology</i> , 2013, 168, 4907-4909.	0.8	56
22	Genome-Wide Association Study of Arginine and Dimethylarginines Reveals Novel Metabolic Pathway for Symmetric Dimethylarginine. <i>Circulation: Cardiovascular Genetics</i> , 2014, 7, 864-872.	5.1	53
23	Asymmetric Dimethylarginine Reference Intervals Determined with Liquid Chromatography-Tandem Mass Spectrometry: Results from the Framingham Offspring Cohort. <i>Clinical Chemistry</i> , 2009, 55, 1539-1545.	1.5	51
24	Independent Association of Urinary F2-Isoprostanes With Survival in Pulmonary Arterial Hypertension. <i>Chest</i> , 2012, 142, 869-876.	0.4	50
25	Symmetric dimethylarginine is a marker of detrimental outcome in the acute phase after ischaemic stroke: role of renal function. <i>Clinical Science</i> , 2012, 122, 105-111.	1.8	45
26	Oxidative stress in drug-naïve first episode patients with schizophrenia and major depression: effects of disease acuity and potential confounders. <i>European Archives of Psychiatry and Clinical Neuroscience</i> , 2018, 268, 129-143.	1.8	45
27	Association of the Endogenous Nitric Oxide Synthase Inhibitor ADMA With Carotid Artery Intimal Media Thickness in the Framingham Heart Study Offspring Cohort. <i>Stroke</i> , 2009, 40, 2715-2719.	1.0	44
28	Oral supplementation with L-homoarginine in young volunteers. <i>British Journal of Clinical Pharmacology</i> , 2016, 82, 1477-1485.	1.1	43
29	Serum-Sphingosine-1-Phosphate Concentrations Are Inversely Associated with Atherosclerotic Diseases in Humans. <i>PLoS ONE</i> , 2016, 11, e0168302.	1.1	42
30	Dietary Supplementation with Homoarginine Preserves Cardiac Function in a Murine Model of Post-Myocardial Infarction Heart Failure. <i>Circulation</i> , 2017, 135, 400-402.	1.6	40
31	Ranolazine antagonizes catecholamine-induced dysfunction in isolated cardiomyocytes, but lacks long-term therapeutic effects <i>in vivo</i> in a mouse model of hypertrophic cardiomyopathy. <i>Cardiovascular Research</i> , 2016, 109, 90-102.	1.8	38
32	Loss of sphingosine 1-phosphate (S1P) in septic shock is predominantly caused by decreased levels of high-density lipoproteins (HDL). <i>Journal of Intensive Care</i> , 2019, 7, 23.	1.3	37
33	Personalised haemodynamic management targeting baseline cardiac index in high-risk patients undergoing major abdominal surgery: a randomised single-centre clinical trial. <i>British Journal of Anaesthesia</i> , 2020, 125, 122-132.	1.5	37
34	Integrated genomics and metabolomics in nephrology. <i>Nephrology Dialysis Transplantation</i> , 2014, 29, 1467-1474.	0.4	34
35	Cardiomyocyte dimethylarginine dimethylaminohydrolase-1 (DDAH1) plays an important role in attenuating ventricular hypertrophy and dysfunction. <i>Basic Research in Cardiology</i> , 2017, 112, 55.	2.5	30
36	Dimethylarginines: their vascular and metabolic roles in Africans and Caucasians. <i>European Journal of Endocrinology</i> , 2010, 162, 525-533.	1.9	29

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37	Incidence of All-Cause and Cardiovascular Mortality Predicted by Symmetric Dimethylarginine in the Population-Based Study of Health in Pomerania. <i>PLoS ONE</i> , 2014, 9, e96875.	1.1	29
38	Arginine Derivatives in Cerebrovascular Diseases: Mechanisms and Clinical Implications. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1798.	1.8	29
39	Plasma symmetric dimethylarginine reference limits from the Framingham offspring cohort. <i>Clinical Chemistry and Laboratory Medicine</i> , 2011, 49, 1907-10.	1.4	28
40	Low Homoarginine Levels in the Prognosis of Patients With Acute Chest Pain. <i>Journal of the American Heart Association</i> , 2016, 5, e002565.	1.6	28
41	Symmetrical (SDMA) and asymmetrical dimethylarginine (ADMA) in sepsis: high plasma levels as combined risk markers for sepsis survival. <i>Critical Care</i> , 2018, 22, 216.	2.5	27
42	Circulating Metabolites Differentiate Acute Ischemic Stroke from Stroke Mimics. <i>Annals of Neurology</i> , 2020, 88, 736-746.	2.8	27
43	Plasma Nitrate and Incidence of Cardiovascular Disease and All-Cause Mortality in the Community: The Framingham Offspring Study. <i>Journal of the American Heart Association</i> , 2017, 6, .	1.6	26
44	Reference intervals for serum sphingosine-1-phosphate in the population-based Study of Health in Pomerania. <i>Clinica Chimica Acta</i> , 2017, 468, 25-31.	0.5	25
45	FoxO1 regulates asymmetric dimethylarginine via downregulation of dimethylaminohydroxylase 1 in human endothelial cells and subjects with atherosclerosis. <i>Atherosclerosis</i> , 2015, 242, 230-235.	0.4	24
46	A Label-Free Continuous Fluorescence-Based Assay for Monitoring Ornithine Decarboxylase Activity with a Synthetic Putrescine Receptor. <i>SLAS Discovery</i> , 2017, 22, 906-914.	1.4	23
47	Homoarginine supplementation improves blood glucose in diet-induced obese mice. <i>Amino Acids</i> , 2015, 47, 1921-1929.	1.2	21
48	Asymmetric Dimethylarginine at Sea Level Is a Predictive Marker of Hypoxic Pulmonary Arterial Hypertension at High Altitude. <i>Frontiers in Physiology</i> , 2019, 10, 651.	1.3	20
49	Nitric oxide synthesis capacity, ambulatory blood pressure and end organ damage in a black and white population: the SABPA study. <i>Amino Acids</i> , 2016, 48, 801-810.	1.2	19
50	Reference intervals of plasma homoarginine from the German Gutenberg Health Study. <i>Clinical Chemistry and Laboratory Medicine</i> , 2016, 54, 1231-1237.	1.4	19
51	ADMA, subclinical changes and atrial fibrillation in the general population. <i>International Journal of Cardiology</i> , 2016, 203, 640-646.	0.8	19
52	Asymmetric and Symmetric Dimethylarginines are Markers of Delayed Cerebral Ischemia and Neurological Outcome in Patients with Subarachnoid Hemorrhage. <i>Neurocritical Care</i> , 2018, 29, 84-93.	1.2	19
53	Serum neurofilament is associated with motor function, cognitive decline and subclinical cardiac damage in advanced Parkinson's disease (MARK-PD). <i>Parkinsonism and Related Disorders</i> , 2021, 90, 44-48.	1.1	19
54	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. <i>International Journal of Cardiology</i> , 2017, 248, 7-13.	0.8	18

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55	Subclinical Cardiac Microdamage, Motor Severity, and Cognition in Parkinson's Disease. <i>Movement Disorders</i> , 2020, 35, 1863-1868.	2.2	18
56	Elevated serum SDMA and ADMA at hospital admission predict in-hospital mortality of COVID-19 patients. <i>Scientific Reports</i> , 2021, 11, 9895.	1.6	18
57	The relationship of nitric oxide synthesis capacity, oxidative stress, and albumin-to-creatinine ratio in black and white men: the SABPA study. <i>Age</i> , 2016, 38, 9.	3.0	17
58	Determinants of Serum- and Plasma Sphingosine-1-Phosphate Concentrations in a Healthy Study Group. <i>TH Open</i> , 2020, 04, e12-e19.	0.7	16
59	ADMA and arginine derivatives in relation to non-invasive vascular function in the general population. <i>Atherosclerosis</i> , 2016, 244, 149-156.	0.4	15
60	Myeloid-Derived Suppressor Cells Mediate Immunosuppression After Cardiopulmonary Bypass. <i>Critical Care Medicine</i> , 2019, 47, e700-e709.	0.4	15
61	Association of proton pump inhibitor use with endothelial function and metabolites of the nitric oxide pathway: A cross-sectional study. <i>Pharmacotherapy</i> , 2021, 41, 198-204.	1.2	15
62	A Thromboxane A ₂ Receptor-Driven COX-2-Dependent Feedback Loop That Affects Endothelial Homeostasis and Angiogenesis. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2022, 42, 444-461.	1.1	15
63	Dimethylarginine Dimethylaminohydrolase-1 Transgenic Mice Are Not Protected from Ischemic Stroke. <i>PLoS ONE</i> , 2009, 4, e7337.	1.1	14
64	L-Arginine and SDMA Serum Concentrations Are Associated with Subclinical Atherosclerosis in the Study of Health in Pomerania (SHIP). <i>PLoS ONE</i> , 2015, 10, e0131293.	1.1	14
65	Cognitive performance of 20 healthy humans supplemented with L-homoarginine for 4 weeks. <i>Journal of Clinical Neuroscience</i> , 2018, 50, 237-241.	0.8	13
66	Evidence by GC-MS that lysine is an arginase-catalyzed metabolite of homoarginine in vitro and in vivo in humans. <i>Analytical Biochemistry</i> , 2019, 577, 59-66.	1.1	13
67	Relationship between exercise intervention and NO pathway in patients with heart failure with preserved ejection fraction. <i>Biomarkers</i> , 2018, 23, 540-550.	0.9	12
68	Asymmetric dimethylarginine, related arginine derivatives, and incident atrial fibrillation. <i>American Heart Journal</i> , 2016, 176, 100-106.	1.2	11
69	Low-Circulating Homoarginine is Associated with Dilatation and Decreased Function of the Left Ventricle in the General Population. <i>Biomolecules</i> , 2018, 8, 63.	1.8	11
70	Association of Lower Plasma Homoarginine Concentrations with Greater Risk of All-Cause Mortality in the Community: The Framingham Offspring Study. <i>Journal of Clinical Medicine</i> , 2020, 9, 2016.	1.0	11
71	Measurement of homoarginine in human and mouse plasma by LC-MS/MS and ELISA: a comparison and a biological application. <i>Amino Acids</i> , 2015, 47, 2015-2022.	1.2	10
72	Homoarginine predicts mortality in treatment-naive patients with pulmonary arterial hypertension. <i>International Journal of Cardiology</i> , 2016, 217, 12-15.	0.8	10

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73	Guanidino compound ratios are associated with stroke etiology, internal carotid artery stenosis and CHA2DS2-VASc score in three cross-sectional studies. <i>Journal of the Neurological Sciences</i> , 2019, 397, 156-161.	0.3	10
74	Association of lipid levels with motor and cognitive function and decline in advanced Parkinson's disease in the Mark-PD study. <i>Parkinsonism and Related Disorders</i> , 2021, 85, 5-10.	1.1	10
75	Serum Sphingosine-1-Phosphate Levels Are Associated With Severity and Outcome in Patients With Cerebral Ischemia. <i>Stroke</i> , 2021, 52, 3901-3907.	1.0	10
76	Muscle phenotype of AGAT- and GAMT-deficient mice after simvastatin exposure. <i>Amino Acids</i> , 2020, 52, 73-85.	1.2	9
77	Sphingosine-1-Phosphate Attenuates Lipopolysaccharide-Induced Pericyte Loss via Activation of Rho-A and MRTF-A. <i>Thrombosis and Haemostasis</i> , 2021, 121, 341-350.	1.8	9
78	Sphingosine-1-Phosphate, Motor Severity, and Progression in Parkinson's Disease (<scp>MARK</scp>). <i>Movement Disorders</i> , 2021, 36, 2178-2182.	2.2	9
79	Arginine metabolism and nitric oxide turnover in the ZSF1 animal model for heart failure with preserved ejection fraction. <i>Scientific Reports</i> , 2021, 11, 20684.	1.6	9
80	Differential effects of nebivolol vs. metoprolol on microvascular function in hypertensive humans. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 311, H118-H124.	1.5	8
81	Data on subgroup specific baseline characteristics and serum sphingosine-1-phosphate concentrations in the Study of Health in Pomerania. <i>Data in Brief</i> , 2017, 12, 46-50.	0.5	8
82	Cross-Sectional Associations between Homoarginine, Intermediate Phenotypes, and Atrial Fibrillation in the Communityâ€”The Gutenberg Health Study. <i>Biomolecules</i> , 2018, 8, 86.	1.8	8
83	Association of Asymmetric Dimethylarginine and Diastolic Dysfunction in Patients with Hypertrophic Cardiomyopathy. <i>Biomolecules</i> , 2019, 9, 277.	1.8	8
84	Increased Sphingosine-1-Phosphate Serum Concentrations in Subjects with Periodontitis: A Matter of Inflammation. <i>Journal of Inflammation Research</i> , 2021, Volume 14, 2883-2896.	1.6	8
85	Lâ€”homoarginine is associated with decreased cardiovascularâ€”and allâ€”cause mortality. <i>European Journal of Clinical Investigation</i> , 2021, 51, e13472.	1.7	8
86	Central systolic blood pressure relates inversely to nitric oxide synthesis in young black adults: the African-PREDICT study. <i>Journal of Human Hypertension</i> , 2020, 35, 985-993.	1.0	7
87	Intrathecal and systemic alterations of L-arginine metabolism in patients after intracerebral hemorrhage. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 0271678X2098321.	2.4	7
88	Trimethyllysine, vascular risk factors and outcome in acute ischemic stroke (MARKâ€”STROKE). <i>Amino Acids</i> , 2021, 53, 555-561.	1.2	7
89	Analyses of sphingosine-1-phosphate in the context of transfusion: how much is in stored blood products and in patient blood?. <i>Transfusion</i> , 2019, 59, 3071-3076.	0.8	6
90	Asymmetric dimethylarginine and l-homoarginine prospectively relate to carotid wall thickness in a South African cohort. <i>Amino Acids</i> , 2020, 52, 965-973.	1.2	5

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91	The F2-isoprostane 8-iso-PGF ₂ ± attenuates atherosclerotic lesion formation in Ldlr-deficient mice â€“ Potential role of vascular thromboxane A2 receptors. <i>Free Radical Biology and Medicine</i> , 2022, 185, 36-45.	1.3	5
92	Arginine:Glycine Amidinotransferase Is Essential for Creatine Supply in Mice During Chronic Hypoxia. <i>Frontiers in Physiology</i> , 2021, 12, 703069.	1.3	4
93	Dynamics of Vascular Protective and Immune Supportive Sphingosine-1-Phosphate During Cardiac Surgery. <i>Frontiers in Immunology</i> , 2021, 12, 761475.	2.2	4
94	Thromboxane A2 receptor activation via G _i 13-RhoA/C-ROCK-LIMK2-dependent signal transduction inhibits angiogenic sprouting of human endothelial cells. <i>Biochemical Pharmacology</i> , 2022, 201, 115069.	2.0	4
95	Creatine, guanidinoacetate and homoarginine in statin-induced myopathy. <i>Amino Acids</i> , 2020, 52, 1067-1069.	1.2	3
96	Blood pressure and nitric oxide synthesis capacity in physically active and inactive groups: the SABPA study. <i>Journal of Human Hypertension</i> , 2021, 35, 325-333.	1.0	3
97	Sphingosine-1-phosphate and vascular disease in the general population. <i>Atherosclerosis</i> , 2022, 350, 73-81.	0.4	3
98	Population kinetics of homoarginine and optimized supplementation for cardiovascular risk reduction. <i>Amino Acids</i> , 2022, 54, 889-896.	1.2	3
99	Effect of ranolazine on plasma arginine derivatives and urinary isoprostane 8-iso-PGF ₂ ± in patients with myocardial infarction in the randomized RIMINI-Trial. <i>Scientific Reports</i> , 2019, 9, 5708.	1.6	2
100	Low homoarginine/SDMA ratio is associated with poor short- and long-term outcome after stroke in two prospective studies. <i>Neurological Sciences</i> , 2020, 41, 149-153.	0.9	2
101	Homoarginine- and Creatine-Dependent Gene Regulation in Murine Brains with l-Arginine:Glycine Amidinotransferase Deficiency. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1865.	1.8	2
102	Homoarginine and blood pressure: a 10-year prospective relationship in normotensives. <i>Journal of Human Hypertension</i> , 2022, 36, 135-143.	1.0	2
103	Associations of circulating dimethylarginines with the metabolic syndrome in the Framingham Offspring study. <i>PLoS ONE</i> , 2021, 16, e0254577.	1.1	1
104	Reply to: â€œParkin Deficiency Appears Not to Be Associated with Cardiac Damage in Parkinson's Diseaseâ€ Movement Disorders, 2021, 36, 273-274.	2.2	1
105	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. <i>Journal of Clinical Monitoring and Computing</i> , 2022, 36, 1775-1783.	0.7	1
106	Reply to: â€œTerminal Proâ€Bâ€-Type Natriuretic Peptide Levels in Parkinson's Diseaseâ€ Movement Disorders, 2020, 35, 1888-1888.	2.2	0
107	Reference ranges for sphingosine-1-phosphate in neonates. <i>Journal of Perinatal Medicine</i> , 2021, 49, 932-935.	0.6	0